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COLONIAL OFFICE

AN ECONOMIC SURVEY OF THE COLONIAL TERRITORIES 1951

Volume VI

THE MEDITERRANEAN AND PACIFIC TERRITORIES

Malta, Cyprus, Gibraltar,
Fiji, Tonga,
the British Solomon Islands Protectorate,
the Gilbert and Ellice Islands,
and the New Hebrides

LONDON: HER MAJESTY'S STATIONERY OFFICE
1953

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PREFACE

Before the war the Colonial Office published, at approximately yearly intervals, a survey in which were assembled the main facts about the economic situation of the Colonial territories. The last of these, relating to the year 1937, was issued in 1940 (" An Economic Survey of the Colonial Empire (1937) "—Colonial No. 179), after which their publication was suspended. In the meantime there has been a very considerable increase both in popular interest in the affairs of the Colonial territories and in the emphasis laid on Colonial development. It is therefore felt to be appropriate that the ready source of statistical and other relevant information which the survey provided should once again be made available.

The new edition of the survey is being published, not in a single volume as before, but in a series of seven volumes, six of which contain memoranda describing the economic features of each of the Colonial territories in turn, grouped for convenience as follows :—

Volume I.—The Central African and High Commission territories (Northern Rhodesia, Nyasaland, Basutoland, Bechuanaland and Swaziland).

Volume II.—The East African territories (Kenya, Uganda, Tanganyika, Zanzibar and the Somaliland Protectorate) with Aden, Mauritius and Seychelles.

Volume III.—The West African territories (Nigeria, the Gold Coast, Sierra Leone and the Gambia), with St. Helena.

Volume IV.—The West Indian and American territories (Jamaica, Trinidad, Barbados, British Guiana, British Honduras, the Leeward Islands and the Windward Islands, with the Bahamas, Bermuda and the Falkland Islands).

Volume V.—The Far Eastern territories (the Federation of Malaya, Singapore, Hong Kong, North Borneo, Sarawak and Brunei).

Volume VI.—The Mediterranean and Pacific territories (Cyprus, Gibraltar, Fiji, the Gilbert and Ellice Islands, the British Solomon Islands Protectorate, Tonga and the New Hebrides). This volume also includes a chapter on the economic situation of Malta which has been provided by the Malta Government.

An endeavour has been made to prepare the memoranda, of which the above volumes are composed, on uniform lines, so that the same essential facts may be given for each Colonial territory. The main headings under which the information in each is classified are as follows.:—

(1) **General Background**
Geographical and climatic features ; population ; social amenities ; political structure ; principal economic legislation ; communications and transport.

(2) **Productive Activities**
Agricultural conditions and methods ; local food products ; cash crops ; forestry ; fisheries ; minerals ; manufactures ; village industries ; other industries cooperative movements ; employment and labour supply ; fuel and power (including water).

(3) **Finance and Trade**
Public finance ; currency and banking ; private investment ; national income ; standard and cost of living ; balance of trade.

(4) **Development**
Government activities and plans ; other development proceeding or planned.

(5) **Miscellaneous**
Miscellaneous information not covered by the preceding headings.

Volume VII contains a series of memoranda dealing in greater detail than elsewhere with the commodities produced in the Colonial territories as a whole, both those which are intended for export and those which are retained for domestic consumption, together with certain other general and statistical information.

The component volumes of the survey are not being published simultaneously or necessarily in the order indicated above, but as and when the material for each is ready for presentation.

In each case the volume will contain information covering the period from 1938 up to the latest year for which it is available. The present volume includes, so far as practicable, information available during the first half of 1952.

While every care has been taken in compiling the Survey, the Secretary of State cannot be responsible for the accuracy of any of the individual facts and figures in its contents, many of which are derived from sources outside the Colonial Office.

VOLUME VI. THE MEDITERRANEAN AND PACIFIC TERRITORIES

MALTA

I. GENERAL BACKGROUND

Geographical Features

Malta is the largest of a group of islands in the centre of the Mediterranean situated at 36° North Latitude and 15° East Longitude. It is some 58 miles from the southernmost tip of Sicily and approximately 180 miles from the nearest point on the African mainland. Gibraltar is 1,141 miles to the west and Alexandria, Egypt, 944 miles to the east. The island is about 17 miles in length and 9 miles in breadth, with an area of 94·870 square miles and a perimeter of 60 miles. The sister island of Gozo has an area of 25·899 square miles, while the third inhabited island, Comino, which lies between the two larger islands, is about 1 square mile in area. Filfla and Cominotto are only uninhabited islets. The aggregate area of the Group approximates that of the Isle of Wight.

The coastline of Malta is well indented particularly on the east, north-east and south-east sides. The area and length of shoreline of the most important salt water bodies are as follows :—

	Area (sq. miles)	*Length of shoreline (miles)*
Grand Harbour	·849	9·666
Marsamxett Harbour ..	·537	6·5
Marsaxlokk Bay	1·875	6·666
St. Paul's Bay	1·464	5·833
Mellieha Bay	1·468	4·166

Malta consists of a plateau on the west side which descends by gentle steps to the plain on the south-eastern part of the island. The plateau is a faulted, tilted and eroded block of tertiary strata and is mainly a hard and resistant core of coralline limestone with a substratum of marl. The plain in the south-eastern part is composed of a thick stratum of soft globigerine limestone with outcrops of lower coralline limestone occurring all around the southern coast, and is rich in phosphates. In low lying areas the soil is deep but elsewhere it is often less than 1 foot.

This tilting accounts for the cliffs on the western coast of the island which attain an average height of 800 feet and for the submerging of the lower part of the valleys on the south-eastern part, thus providing the main deep and safe harbours. The northern part of the island is characterised by a fault running in an east to west direction with valleys on the northern side of the fault.

In Gozo the same characteristics are met. Low hills of hard upper coralline limestone rise at several points on an undulating plateau of globigerine limestone.

The islands enjoy a healthy, temperate climate. The winters are mild with days of clear, warm weather and summers are hot with long hours of sunshine. The cool sea breezes have a moderating effect during the hot summer months, but in winter they are apt to be chilly. The sirocco, a warm, moist south-east wind, prevails from the middle of September to the middle of October.

The mean temperature during the period 1928-48 was 65·8° F., and the mean minimum temperature 61·3° F. Average rainfall in the same period was 20·92 inches.

Precipitation usually starts during September and reaches the highest limit in December, decreasing gradually until May-June when the dry season begins. Precipitation is rare in June and July.

In 1951 the relative humidity at the Valletta Station varied from a maximum of 99 per cent on the 16th October to a minimum of 33 per cent on the 16th July. The mean relative humidity was 72 per cent in 1951 and 1950.

The mean number of hours of sunshine for the year 1951 was 3,091 compared with 3,066 in the previous year.

Hot, dry summers and mild, moist winters combined with light, sandy soil containing a high lime content and varying in depth from a few inches to a few feet, exercise their control in a definite fashion over natural vegetation. The scarcity of water, the fertility level and the shallowness of the soil limit the vegetation to the types of trees, shrubs, and other forms of vegetative life which are hardy, resistant and capable of growing under adverse conditions.

Population

According to the Census taken on 14th June, 1948, the population of the Maltese Islands was as follows :—

All Islands	305,991
Malta	278,311
Gozo and Comino	27,680

The distribution of the population showed an entirely different pattern from that recorded in previous censuses. This is considered to be mainly due to the fact that during the war urban areas suffered extensively from air-bombing and a considerable number of dwellings was destroyed. For purposes of comparison the 1931 Census figures are given hereunder :—

	1931 *Census*		1948 *Census*	
	Number	%	*Number*	%
Urban ..	55,439	22·9	35,134	11·5
Suburban ..	92,254	38·2	146,280	47·8
Rural ..	93,928	38·9	124,577	40·7

The total population on Census day included 493 aliens (181 males and 312 females), but excluded 1,005 persons who formed the crews of merchant ships anchored in Maltese waters and all non-Maltese Service personnel who were habitually residing in barracks or afloat on one of His Majesty's ships.

The number of persons of working age, i.e., those whose ages were between 14 and 59 (both years inclusive) was 177,771 (86,608 males and 91,163 females). That of persons 60 years of age and over was 24,350 (11,456 males and 12,894 females). The gainfully occupied numbered 92,956 (78,866 males and 14,090 females), of which 3,118 persons (2,604 males and 514 females) were aged 60 and over. A total of 2,338 persons 20 years of age and over were unable to work to full adult capacity as a result of infirmity.

According to the same census there were 100,479 children of 13 years of age and under (50,978 males and 49,501 females), whilst the population of infant age, i.e., 5 years of age and under, was 52,965 (26,962 males and 26,003 females).

Changes in population during the years 1946 to 1951 have been as follows :—

Year	*Population at 1st January*	*Net Natural Increase*	*Net Migration Decrease*	*Other Movements**	*Net Population Increase*
1946	285,284	7,254	996	+2,905	9,163
1947	294,447	7,774	2,142	+3,277	8,909
1948	303,356	7,292	3,019	+1,300	5,573
1949	308,929	7,264	5,260	+1,789	3,793
1950	312,722	7,057	8,010	+ 678	−275
1951	312,447	6,035	7,217	+1,381	+199

* Chiefly Service families.

The number of births in 1950 and 1951 was 10,281 and 9,511 respectively, giving crude birth rates per 1,000 of 32·9 and 30·4 compared with 39·3 in 1944 and 33·0 average from 1936 to 1940. The death rate in 1950 and 1951 was 10·3 and 11·1 respectively compared with 12·21 in 1948. The infant mortality rate in 1949 was 83·76, the lowest yet recorded, and 99·8 in 1951 ; this is very encouraging as the pre-war rate was high and even in 1948 was 112·97, the lowest recorded to that date.

With 312,500 souls Malta is seriously overpopulated, hence the policy of the Government to encourage and assist emigration. A Passage Assistance Scheme is in operation between the Australian Government and the Maltese Government, the two Governments contributing between them £60 towards the passage of each approved migrant. Agreements are also in force with the Australian and Canadian Governments for the admission of specially selected workers.

The proportion of emigrants to various destinations in recent years is shown below :—

DIRECTION OF EMIGRATION, 1947-51

Country of Destination	1947		1948		1949		1950		1951	
	No.	%	*No.*	%	*No.*	%	*No.*	%	*No.*	%
Australia	366	15·0	880	27·9	3,618	67·4	5,563	65·4	4,006	52·1
Canada	27	1·1	719	22·8	258	4·8	863	10·1	1,607	20·9
U.S.A.	351	14·3	654	20·8	302	5·6	1,022	12·0	831	10·8
United Kingdom ..	1,536	62·8	845	26·8	1,137	21·2	1,038	12·2	1,234	16·1
Other	166	6·8	52	1·7	53	1·0	17	·2	9	·1
Total ..	2,446	100	3,150	100	5,368	100	8,503	100	7,687	100

The estimated classification of the gainfully occupied population as at the end of years 1938, 1949 and 1951 was as under :—

	1938	1949	1951
Civil Industry ..	48,600	57,100	50,900
Imperial Services	25,700	21,500	18,400
Civil Government	11,700	12,700	13,300
	86,000	91,300	82,600

The following is a classification according to industrial groups and sex of the 92,956 gainfully occupied persons recorded by the Census taken in June 1948 :—

All Industrial Groups	*Total*	*Males*	*Females*
All Groups	92,956	78,866	14,090
Agriculture	11,423	9,901	1,522
Quarrying	785	785	—
Fishing	1,026	1,018	8
Manufacturing and Mechanc.	16,233	13,078	3,155
Construction	8,747	8,695	52
Transportation and Communication	6,627	6,533	94
Wholesale and Retail Trade	9,864	7,987	1,877
Services :			
Public	20,760	20,455	305
Professional	6,937	3,802	3,135
Other Services	7,597	3,766	3,831
Other	2,957	2,846	111

Social Amenities

Education

Compulsory education was introduced into Malta in 1946 and there are now nearly 60,700 children in both State-aided and private schools. Government provides one secondary school for boys, the famous Lyceum, which is one of the oldest secondary schools in the Colonial Empire, being now over 350 years old. There are three small secondary schools for girls, provided by Government, and other agencies, mainly Roman Catholic Orders, provide further opportunities for secondary education.

There has been very great progress since the war both in the quantity and quality of education. Difficulties of rehabilitation, however, and the pressure of an enlarged school population is stretching personnel and equipment and buildings to their utmost.

Teacher training facilities are provided both for men and women and there is a School Broadcasting Service and Government sponsored campaigns for literacy among those who did not benefit from compulsory education.

Ordinance XXXII of 1947 granted autonomous status to the Royal University of Malta. This institution manages its own finances and is assisted by a Government grant of £25,000 yearly ; it also received a C.D.W. grant of £132,500 mainly for the building of laboratories. The university's income and expenditure in 1950-51 were £33,904 and £30,895 respectively. There were 310 students during 1950-51, and 9 higher degrees were conferred in that academic year.

Health

The principal diseases experienced in Malta are influenza, pneumonia, broncho-pneumonia, scarlet fever, diphtheria, enteric fever, undulant fever, and pulmonary tuberculosis. The incidence of these diseases over the period since 1939 is illustrated in the following table :—

PRINCIPAL DISEASES

Year	*Influenza*		*Pneumonia*		*Broncho-Pneumonia*		*Scarlet Fever*		*Diphtheria*		*Enteric Fever*		*Undulant Fever*		*Murine Typhus*		*Acute Poliomyelitis*		*Pulmonary Tuberculosis*	
	C	*D*	*C*	*D*	*C*	*D*	*C*	*D*	*C*	*D*	*C*	*D*	*C*	*D*	*C*	*D*	*C*	*D*	*C*	*D*
1939 ..	49	5	123	50	307	132	71	3	209	17	282	35	873	52	—	—	2	—	189	118
1940 ..	238	7	122	31	279	117	31	1	145	12	297	31	956	38	—	—	—	—	232	139
1941 ..	91	2	239	47	410	136	19	1	191	30	339	39	619	31	—	—	1	—	294	178
1942 ..	250	1	280	52	455	181	12	2	198	32	998	99	456	16	—	—	188	7	415	227
1943 ..	2,066	3	165	24	426	99	8	—	112	8	1,566	202	334	9	—	—	204	10	314	192
1944 ..	195	—	107	17	223	78	275	—	62	2	361	15	173	8	65	3	—	—	281	146
1945 ..	70	—	91	24	204	82	25	—	104	13	240	23	1,024	26	134	5	37	—	235	134
1946 ..	132	1	141	22	311	134	15	—	241	22	174	12	2,410	39	35	4	46	—	273	133
1947 ..	39	—	103	28	228	155	28	1	546	37	102	12	1,390	33	28	2	59	2	220	161
1948 ..	250	9	64	26	223	85	46	—	249	12	54	4	1,039	15	17	2	11	—	202	104
1949 ..	84	5	62	13	146	88	166	—	119	5	121	3	902	8	21	2	1	—	228	97
1950 ..	26	5	50	18	122	61	1,050	2	33	5	106	4	834	6	57	—	154	8	205	83
1951 ..	283	1	81	14	184	61	40	—	29	1	180	4	613	6	43	1	44	—	172	68

C = Cases notified. *D* = Deaths.

Murine typhus was first experienced in 1944; the incidence of the disease increased in the following year, 1945, since when a considerable reduction has taken place, which is attributed to the adoption of improved methods of rat control. Acute poliomyelitis was experienced in 1942 and 1943 and occurred again, with diminished incidence and mortality, in the period 1945-48. A further severe outbreak occurred in 1950-51.

Morbidity is highest in the case of undulant fever and enteric fever. Measures which have been introduced progressively in recent years and which appear to be having some success in reducing the incidence of undulant fever, comprise pasteurisation of milk together with propaganda against the consumption of raw milk and prohibition of its sale in certain areas.

Mortality, both absolutely and in relation to the number of cases notified, is highest in the case of tuberculosis, pneumonia and broncho-pneumonia. The incidence of tuberculosis is highest between the ages of 15 and 30 and males are markedly more affected than females in this as in most age-groups. Financial assistance is given to dependants of tuberculous patients to encourage the latter to seek treatment in the earlier stages of the disease.

Diphtheria, including membranous croup, is endemic in Malta, as also is enteric fever. The incidence of diphtheria is highest among children under five.

Doctors licensed to practise medicine in Malta number 291, of whom 31 are Government full-time staff, debarred thereby from private practice. There are 25 dentists and/or dental surgeons. In addition to 56 registered nurses there are 140 (85 male, 55 female) certified and a large number of uncertified hospital attendants (assistant nurses).

Housing

The housing density is approximately 70 tenements per acre in the towns and 40 to 50 tenements per acre in the villages. Each tenement averages four to five rooms and occupies an area varying from 800 to 1,000 square feet. They are of the flat terrace type and, as far as practicable, arranged with independent entrances from the street. Each block, generally three to four storeys high, includes houses with independent street entrances, flats with common staircases (each staircase feeding from two to four tenements), shops and garages.

Social Security

In March 1943 a scheme was introduced, on a non-contributory basis, providing for the payment of allowances varying from 10s. to 38s. per week to those in need; the amount of allowance paid varies according to the circumstances of the household concerned.

In September 1948 an Old Age Pension Scheme, also on a non-contributory basis, was introduced. The rates payable range from 12s. per week for persons with incomes not exceeding £26 5s. a year to 3s. per week to persons with incomes over £47 5s. but under £49 17s. 6d. No pension is paid in cases where the income is £49 17s. 6d. or over.

There are friendly societies providing medical attention and financial assistance during illness, but they are all privately-run societies and no details are available.

The Government Savings Bank is run as a Section of the Treasury. Deposits earn interest at 2 per cent and are limited to a maximum of £1,000 as current and £4,000 fixed deposit account per person.

Political Structure

A Council of Government, partly elected, was constituted by Letters Patent in 1849, and reconstituted in 1887, the Letters Patent being amended in 1898 and again in 1903.

By Letters Patent dated 14th April, 1921, responsible government was established in Malta.

This constitution was suspended from 1930 to 1932 and again on 2nd November, 1933, the Senate and Legislative Assembly being dissolved from the same date. It was finally revoked by the Letters Patent, dated 12th August, 1936, which were proclaimed in Malta on 2nd September, 1936.

Letters Patent dated 14th February, 1939, re-established representative Government, providing for a partly elected Council of Government and for an Executive Council.

New Letters Patent dated 5th September, 1947, came into force on the 22nd September, 1947. They provide for a Legislative Assembly of 40 members, elected by universal suffrage by proportional representation. The Legislative Assembly passes Bills for "the peace, order and good government of Malta" subject to certain limitations regarding "reserved matters." The Ministry consists of the Prime Minister and not more than seven other Ministers. The Executive Council consists of the Cabinet presided over by the Governor. Legislative and administrative powers in regard to defence and various matters related or incidental to defence and external relations are reserved to the Governor advised by the Nominated Council, which consists of the Lieutenant-Governor, the Legal Secretary and three officers (one from each of the Royal Navy, the Army and the Royal Air Force). The Privy Council consists of the Executive Council and the Nominated Council sitting together.

The Privy Council affords an opportunity for joint consultation in matters in which action proposed to be taken by one side of the dyarchy may affect the other side.

The English language and the Maltese language are the official languages of Malta.

Principal Economic Legislation

General

Much of Malta's legislation is codified, the principal sections bearing on economic activities being the Civil and Criminal Codes, the Code of Police Laws, and the Commercial Code, these forming chapters 23, 12, 13 and 17 respectively of the Revised Edition of the Laws of Malta.

The Civil Code governs rights and obligations relating to persons (Book One) and property (Book Two), including in the latter rules for the acquisition and disposal of movable and immovable property whether by sale, gift or legacy. Book Two contains, among others, provisions relating to contracts, debts, and other obligations (Title IV), to contracts of sale (Title VI), of letting and hiring (Title IX) and of partnership (Title X), and to hypothecs or mortgages (Title XXIII).

The Criminal Code defines the types and classes of criminal offences, and prescribes punishments and general rules for their application; Title VI covers crimes against public trade and bankruptcy offences, and Title IX relates to crimes against property (including theft, fraud, and other offences relating to unlawful acquisition and possession of property) and against public safety (including injury to property).

The Code of Police Laws imposes regulations governing the construction, alteration, and occupation of buildings, the licensing and use of vehicles and the keeping of animals; the conduct of hotels, clubs, theatres and places of entertainment, shops, and a variety of other trades and activities are subject to the provisions of this Code.

The Commercial Code prescribes the rules of trade in general, including (Part I), the keeping of books, the employment of managers and agents, the conduct of partnerships and of companies, and the form, etc., of bills of exchange, promissory notes and drafts, or cheques. Part II of the Code governs the rights and liabilities involved in maritime trade and navigation and Part III makes detailed provision concerning bankruptcy.

The formation and conduct of co-operative societies is governed by the Co-operative Societies Ordinance (No. XXXIV) of 1946.

Under the Encouragement of New Industries Act (Chapter 89 of the Revised Edition of the Laws of Malta), provision is made for the grant of monopoly rights to individuals or firms, where the grant of such rights appears likely to promote the advantage of the Islands. There may be granted under the Act "an exclusive right to start and carry on any new industry in Malta and its Dependencies for a specified period of years. . . ." The duration fixed for the grants may not exceed fifty years.

Such conditions may be imposed for the operation of the monopoly as are deemed expedient at the time.

Income tax was first imposed in Malta under the Income Tax Act (No. LIV) of 1948 which came into operation on 1st January, 1949. Stamp duties are levied under the terms of the Stamp Duties Ordinance, Chapter 68 of the Revised Edition of the Laws of Malta, as subsequently amended.

Trade Tariffs

The management and regulation of Customs is provided for under the Customs Ordinance, Chapter 60 of the Revised Edition of the Laws of Malta ; this Ordinance prescribes rules, among others, for the reporting of cargo, for the entry, unshipping, landing, examination, warehousing, and custody of goods, for the transfer of goods in bond, and for the clearance outwards of ships. The rates of customs duties and the rules for their assessment, etc., are laid down in the Import and Export Duties Ordinance, Chapter 122 of the Revised Edition of the Laws of Malta, as amended from time to time.

The rates in force at the end of 1951 on some of the principal classes of goods are shown in the table below :—

IMPORT DUTIES ON SELECTED GOODS

		Empire Preferential Tariff	*General Tariff*
Specific Duties		£ s. d.	£ s. d.
Cement	per 1,000 kilos	10 0	14 0
Matches from	per gross of boxes	1 0	1 0
to	according to size	3 0	3 0
Oil, Diesel or Gas	per gallon	3	3
Petrol Spirit	per hectolitre	1 13 0	1 13 0
Sugar :			
Raw Sugar	per 100 kilos	8	8
Refined Sugar	,,	2 8	2 8
Tobacco :			
Cigarettes	per kilo	3 0 0	3 0 0
Cigars	,,	2 15 0	2 15 0
Other Manufactured Tobacco	,,	1 10 0	1 10 0
Unmanufactured Tobacco	,,	1 9 6	1 10 0
Wines and Spirits :			
Must from	per 100 kilos	2 8 0	2 8 0
to		7 0 0	7 0 0
Other Spirits from	per litre	19 6	1 0 6
to		1 1 0	1 2 0
Wine in casks from	per hectolitre	2 15 0	3 0 0
to		27 0 0	27 0 0
Ad Valorem Duties (The principal rates of *ad valorem* duty are :— Preferential Tariff, 12% ; General Tariff, 26%. There are wide variations, however, from these rates.)			
Asbestos Sheets		10%	10%
Bicycles and Parts		16%	30%
Bitumen		5%	15%
Electrical Goods*		12%	26%
Footwear† from	per pair	1d.	1d.
to		10s.	12s. 6d.
or from		15%	15%
to			25%
Furniture :			
Tubular or Wicker, generally		35%	50%
Other, Wood and/or Metal, generally		25%	40%
Certain classes, exceptionally		60%	75%
Hardware :			
Nails and Screws		20%	34%
Ornamental		26%	40%
Other Hardware		12%	26%
Motor Vehicles :			
Motor Tractors		18%	40%
Motor Cycles and Sidecars		40%	62%
Other Motor Vehicles		35%	50%
Musical Instruments :			
Pianos, Pianolas, and Organs		26%	40%
Gramophones and Records		30%	44%
Wireless Sets, Radiograms, etc.		40%	45%
Textiles :			
Cotton, wool, linen material and imitation silk or other fabric material		16%	30%
Manufactures of natural or imitation silk and wearing apparel		25%	39%

* With additional specific duties on certain classes of electrical fittings.

† Specific or *ad valorem* as shown, whichever is the greater. Except that the General Tariff may not exceed the Preferential Tariff by more than 1s. to 2s. 6d. according to the class of footwear affected.

The Local Lace Industry (Protection) Act prohibits the import of lace made by machinery in imitation of that lace ordinarily manufactured by hand in the Islands ; the Act further provides for the control by regulation of the local trade and of the export of local lace.

Labour

Under the terms of the Director of Labour and Social Welfare (Establishment) Ordinance (No. XIX) of 1943, as subsequently amended, the Director of Labour and later the Minister of Labour is made responsible for the supervision of legislation in general governing labour and related matters and of the following enactments in particular : Workmen's Compensation Ordinance 1934, as amended ; Hours of Employment and Shops Ordinance, 1938 ; Stevedores and Port Labourers Ordinance, 1939 ; Factories Ordinance, 1940, the Conciliation and Arbitration Act, 1948 ; the Conditions of Employment (Regulation) Act, 1952 ; the Industrial Training Act, 1952.

The Workmen's Compensation Scheme is comprehensive and has compulsory force over persons working for an employer ; it is open on a voluntary basis to self-employed persons. The Factories Ordinance provides for the making of regulations to govern sanitation and cleanliness, etc., to prevent overcrowding, and to ensure proper safety and health precautions ; inspection of factories is provided for ; hours of work may be regulated under the Ordinance.

The Trade Unions and Trade Disputes Ordinance, 1945, regulates the formation and conduct of trade unions ; trade unions are required to be registered and to submit to the Registrar of Trade Unions annual statements of accounts, annual reports, and lists of officers. The Conciliation and Arbitration Act of 1948 makes provision for the voluntary or compulsory settlement of trade disputes through the medium of a Board of Conciliation and/or an Arbitration Tribunal.

The Conditions of Employment (Regulation) Act, 1952 envisages encouragement of the formation of Joint Industrial Councils or of the creation of Wages Councils. The Act also provides for the employment of aged, disabled or infirm persons at wages less than those laid down in recognised conditions of employment, as well as for the protection of wages of workers.

The Industrial Training Act, 1952, regulates the employment and training of apprentices and learners in Malta.

Land Tenure

The ownership, use, and disposal of land in Malta is governed by the provisions of the Civil Code (Book II) relating to immovable property. Vacant property belongs to the Crown. Land which is required for public purposes may be acquired compulsorily within the terms of the Land Acquisition (Public Purposes) Ordinance, Chapter 136 of the Revised Edition of the Laws of Malta. Certain obligations are imposed on owners or occupiers of property with regard to its valuation for the purpose of War Damage Compensation ; the relevant war-time legislation —Developed Land (Valuation) Ordinance—has been retained as Chapter 175 of the Revised Edition of the Laws since its application continues to be necessary in the early post-war period. The Housing Act (No. II) of 1949 provides for the requisitioning of buildings, where necessary, to ensure fair distribution of living accommodation.

Immigration

The Immigration (British Subjects) Ordinance, 1948, places restrictions on the rights of British subjects to enter the Maltese Islands. Persons belonging to the Islands, and certain other categories of persons as defined in the Ordinance are exempted from the provisions of the Ordinance which, in general, requires entrants to be in possession of a passport, and prohibits the entry of persons considered of undesirable character.

Aliens are subject to more stringent regulations under the terms of the Aliens Ordinance, 1949. Aliens are, in general, prohibited from entering the Islands for the purpose of seeking paid employment, and must obtain a licence before being allowed to engage in teaching or to practise certain other professions not relating directly to commerce or navigation ; they are required to register and may be required to furnish a security.

Communications and Transport

Internal

At the end of 1951 total mileage of roads was 523 miles. Whilst this represents only a small increase in total mileage since 1940 when the mileage totalled 510 miles, there has been a large increase in the number of first class roads, particularly asphalted roads as the following figures show :—

ROAD MILEAGE, 1940 AND 1946-51

Year	*Class I*		*Total*	*Class II*	*Class III*	*Total Mileage*
	Asphalted	*Macadam*				
1940	121	202	323	96	91	510
1946	192	130	322	96	91	509
1947	229	94	323	96	91	510
1948	242	85	327	95	89	511
1949	258	81	339	91	89	519
1950	284	76	360	78	83	521
1951	309	73	382	68	73	523

New projected roads are (*a*) one encircling the main industrial belt of the Island, the Dockyard and the harbours, and (*b*) a road connecting the airfields and the seaplane base to Valletta.

There has been a large increase in the number of vehicles on the road in recent years ; the number of private cars licensed has increased almost twelve-fold since 1940, whilst the number of commercial vehicles has more than doubled. The increases are shown in the following table, which shows motor vehicle licences issued annually in selected years. The table excludes vehicles owned by Government and the Services, licences for which are issued free of charge.

MOTOR VEHICLE LICENCES ISSUED 1940-41 AND 1946-47 TO 1950-51

End of year	*Private Cars*	*Hire Cars*	*Omnibuses*	*Commercial*(1) *Vehicles*	*Motor Cycles*
1940-41 ..	546	613	599	939	275
1946-47 ..	3,559	545	570	1,997	787
1947-48 ..	4,532	521	588	2,098	1,211
1948-49 ..	4,957	716	543	2,183	1,190
1949-50 ..	6,036	403	551	2,430	1,299
1950-51 ..	6,525	448	566	2,612	1,504

(1) Including tractors.

There are no railways, trams, canals, or other inland waterways.

No daily service exists between Malta and the Continent by the sea route, but Italian steamers call at Malta three times monthly all the year round on the run Naples, Catania, Syracuse, Malta, Tripoli. Two small locally owned ships operate a tri-weekly service between Malta and Syracuse during the summer months. Various cargo ships carry passengers to and from the island occasionally.

Port dues are payable on net tonnage as under :

Sailing vessels :			
for every 20 tons or fraction thereof ..	£0	5	0
Auxiliary vessels :			
for every 20 tons or fraction thereof ..	£0	7	6
Steam vessels (not exceeding 2,000 tons) :			
for every 500 tons or fraction thereof ..	£2	0	0
Steam vessels (exceeding 2,000 tons) :			
for the first 2,000 tons	£10	0	0
for every further 1,000 tons or fraction thereof	£1	0	0

Port dues are trebled in the case of vessels staying in harbour for more than three months, but vessels calling in ballast, in distress or for bunkering purposes and performing no commercial operation and remaining in harbour for not more than fourteen days pay (*a*) in the case of steam vessels £1, and (*b*) in the case of sailing or auxiliary vessels—one-half the ordinary rate. Private yachts are exempt from payment of port dues.

External

On account of its central position in the Mediterranean, Malta is well situated for transit trade, and the Grand Harbour is equipped with storage facilities where goods in transit can be maintained. Malta has become less important as a transit centre during the past century owing to the increased range of steamships. Extensive storage space still exists, however, for all kinds of merchandise—a fact which enabled the island to survive its siege during the recent war.

The Grand Harbour affords safe anchorage to shipping in all weathers, and improvements to render the port still more attractive to shipping, and to provide up-to-date facilities for the handling of merchandise, are in preparation. The port is equipped with a commercial signalling station and an organised pilotage service, both under Government control. Pilotage is compulsory for ships over 500 tons.

Malta's port activities have been increasing steadily since 1945, but have not yet attained their pre-war figure ; as the following comparison of shipping in selected pre-war years with 1938 figures shows :

SHIPPING ENTERED, 1938, 1944, 1948, 1950 AND 1951

Item	1938		1944		1948		1950		1951	
	No.	*Tons* 000	*No.*	*Tons* 000	*No.*	*Tons* 000	*No.*	*Tons* 000	*No.*	*Tons* 000
Steam Vessels										
With cargo ..	1,472	3,161	79	257	864	945	1,336	1,139	1,131	1,129
In ballast	565	1,310	—	—	376	607	462	834	549	930
Sailing Vessels										
With cargo ..	371	13	86	6	1,168	23	151	11	262	19
In ballast	104	4	—	—	93	2	16	1	34	3

The Royal Air Force airport at Luqa and the sea port at Marsaxlokk are being used for civilian traffic. The British Overseas Airways Corporation and British European Airways Limited in conjunction with Malta Airways Limited hold a licence to operate an air service to and from the United Kingdom and a direct service to and from Rome. Air Malta Limited also operates a service to Rome via Catania, Palermo and Naples. A service to North Africa is also in operation.

The number of aircraft (excluding H.M. Forces machines) making use of Maltese airports has increased considerably since pre-war years. The following table shows arrivals of British and foreign aircraft at Malta for selected years :

NUMBERS AND TONNAGE OF AIRCRAFT ARRIVING AT MALTA, 1940 AND 1946-1951

Year	*British*		*Foreign*		*Total*	
	No.	*Tons*	*No.*	*Tons*	*No.*	*Tons*
1940	91	843	125	1,632	216	2,475
1946	1,182	15,156	18	372	1,200	15,528
1947	3,144	41,021	170	2,783	3,314	43,804
1948	2,537	32,204	337	4,047	2,874	36,251
1949	1,897	26,850	635	9,810	2,532	36,660
1950	1,923	27,245	432	11,189	2,355	38,434
1951	2,084	36,722	308	5,281	2,392	42,003

II. PRODUCTIVE ACTIVITIES

Agriculture

The majority of the farms in the islands are small, averaging between 3 acres and 4 acres in extent. The lower-lying lands, however, provide fields of reasonable size, though rarely exceeding an area of 40 acres.

The smaller farms are usually run by the farmer and his family, and except during the sowing season paid help is rarely enlisted. The small farms preclude the extensive use of mechanical means, and farming operations are mostly performed by manual or animal labour. Dry farming methods for certain crops have been developed to a high degree of efficiency, as irrigation is the exception rather than the rule. It is estimated that only about 4 per cent of the area farmed is under constant irrigation.

In 1943 threshing machines were successfully introduced by the Department of Agriculture, and the bulk of the wheat and barley crops is now being threshed by machinery. More machines are on order, and it is anticipated that within the next two or three years the use of threshing floors will die out.

Shortage of water is the greatest limiting factor to agricultural expansion. Roughly, only one-twenty-fifth of the total arable land is under irrigation, and for this reason large quantities of fodder, which given sufficiency of water could have been grown locally, have to be imported. A commission has been set up to investigate possibilities of conserving surface run-off water and other means of increasing the fresh water supply.

The area of land available for agricultural purposes is distributed as follows :

	Malta	*Gozo*	*Total*
	Acres	Acres	Acres
Dry Land.. ..	30,638	9,612	40,250
Irrigated	1,201	301	1,502
Waste	4,964	463	5,426

Wheat, barley, potatoes, forages, fresh vegetables and grapes are the main crops grown in the Maltese Islands. Wheat, barley and forages are mainly kept by the farmer to feed his own livestock. A part of the spring crop of potatoes is exported. Fresh vegetables are grown for local consumption.

Acreages and production of the principal crops are shown in the table below for the years 1940-41, 1949-50 and 1950-51 :

ACREAGE AND PRODUCTION OF PRINCIPAL CROPS

Crop	1940–41			1949–50			1950–51		
	Acreage	*Production*		*Acreage*	*Production*		*Acreage*	*Production*	
		Quantity	*Value*		*Quantity*	*Value*		*Quantity*	*Value*
	acres	*tons*	£	*acres*	*tons*	£	*acres*	*tons*	£
Cereals, etc.									
Wheat	5,500	4,300	154,708	5,219	2,920	122,600	4,811	2,759	104,200
Barley*	4,000	3,330	70,063	5,350	3,332	76,400	4,954	2,491	96,000
Vetches ..	2,500	2,020	48,000	2,228	728	17,100	2,196	642	22,900
Forages ..	9,300	240,026	300,000	9,929	33,884	154,700	10,454	36,418	279,500
Broad Beans ..	1,000	656	21,000	1,838	886	24,300	1,619	694	26,100
Cumin Seed ..	—	—	—	64	18	2,300	239	60	9,900
Total ..	22,300	250,332	593,771	24,628	41,768	397,400	24,273	43,064	538,600
Vegetables									
Potatoes ..	4,600	8,900	308,480	8,279	21,329	431,300	8,735	19,710	423,000
Onions ..	1,100	7,500	48,000	798	2,856	29,700	948	4,044	23,900
Melons	700	2,125	35,400	1,646	3,638	53,500	1,345	2,438	44,700
Tomatoes ..	800	2,750	11,458	1,326	3,138	45,000	1,207	3,918	55,100
Other Vegetables	2,150	8,250	107,250	4,740	19,905	281,300	5,482	20,276	251,400
Total ..	9,350	29,525	510,588	16,789	50,866	840,800	17,717	50,386	798,100
Fruits									
Grapes ..	3,000	5,000	72,500	3,238	5,464	192,300	3,323	6,683	159,800
Citrus Fruit ..	195	243	27,000	159	563	51,500	159	625	34,500
†Other Fruit ..	980	3,250	53,625	750	2,259	66,700	241	4,589	49,400
Total ..	4,175	8,493	153,125	4,147	8,286	310,500	3,723	11,897	243,700
Grand Total ..	36,825	288,350	1,257,484	45,564	100,920	1,548,700	45,713	105,349	1,580,400

* Including Meslin. † Including prickly pears and figs which are scattered over the total area given.

The livestock population during the period 1944 to 1950 was as follows :

NUMBERS OF LIVESTOCK

	1944	1945	1946	1947	1948	1949	1950	1951
Cattle ..	3,073	3,720	3,851	2,676	2,732	2,633	2,861	3,505
Horses ..	3,799	3,458	3,418	3,313	3,313	2,753	2,652	2,160
Asses	3,541	3,481	3,309	3,551	3,551	3,335	3,301	3,306
Mules	2,680	2,641	2,591	2,502	2,354	2,351	2,318	2,392
Sheep ..	24,389	29,361	30,003	22,675	26,913	21,237	20,408	21,943
Goats	39,963	50,760	60,730	53,184	59,370	50,677	50,159	47,559
Pigs	7,294	20,001	22,768	16,237	18,591	20,015	20,800	19,154

Fresh vegetables and potatoes are the main cash crops. Subsidiary cash crops are small quantities of cumin and vegetable seeds grown for export.

Fisheries

The greater catches of the year are landed between May and November. During the remaining months of the year the catches by the local fishermen fall short of demand and quantities of fresh fish have to be imported to meet the local requirements. Details are :—

LANDINGS AND IMPORTS OF FRESH FISH 1945-50

Year	*Landings*		*Imports*	
	Quantity	*Value*	*Quantity*	*Value*
	tons	£	tons	£
1945.. ..	1,261	171,874	124	14,313
1946.. ..	1,227	197,170	385	48,803
1947.. ..	1,348	198,300	288	34,018
1948.. ..	1,480	185,040	271	32,658
1949.. ..	1,412	171,860	226	22,609
1950.. ..	1,022	137,654	211	25,718
1951.. ..	784	116,502	167	26,725

The more important fishing methods in use are :—

(*a*) Long-lines and basket-traps ;
(*b*) Seine-nets, used in conjunction with anchored cork-floats, for the specific capture of the corephene and pilot-fish.
(*c*) Ring-seine nets, used in conjunction with high-power incandescent lights for the capture of mackerel and other fish of the pelagic species.

The ring-seine net was developed in recent years, and in 1948 yielded 13,375 cwts. of mackerel, of which 800 cwts. were surplus to the local demand and were exported to Sicily. During the mackerel season, sardines and alice-shad or sprat also abound in the waters around Malta, but these are not sought by the fishermen as there has been no demand for them, there being no fish processing works on the Island.

Most of the fishing craft in use are boats of under 40 feet in length, propelled by diesel engines, but, being undecked, are only suitable for use on smooth seas. These boats do not stay long at sea and the catch, when landed, is only a few hours old and is generally consumed the same day. On days of glut, any surplus fish is kept in cold-storage.

Practically all the fish landed is caught within 25 miles of the Island. There are very good fishing grounds about 100 miles to the West of Malta, but larger craft are required to operate at these distances. During 1948 three ex-Admiralty launches, 72 feet in length, were converted into fishing boats, one being equipped for trawling. Two of these boats made trips to the above-mentioned fishing grounds with very encouraging results. With more boats of this size, it may be possible to eliminate the necessity of having to import fresh fish during the lean months.

Minerals

There are no known mineral resources in Malta. By Ordinance No. XXIII of 1947, however, the property in petroleum and natural gas within these Islands is vested in the Government. The Ordinance provides also for the licensing and the control of the searching and boring for such minerals.

Manufactures

Local manufactures include flour, flour-paste, meat products (sausages, mortadella and salami), tomato paste, beer, wine, aerated waters, cigarettes, cigars, smokers' pipes, shirts, footwear, handbags, furniture, cement tiles, marble works, bitumen, basketware, soap, candles, crown corks, gloves, mirrors, homespun cloth, buttons and tanned leather. Raw materials for these industries are all imported except in the case of tomato-paste, wine, leather and to some extent meat products. The number of workers engaged in these industries is about 8,000 out of a total working population of 80,000-90,000. No census of industrial production has ever been taken and therefore no information can be given regarding output, value of raw materials or capital investment. The bulk of the production is for local consumption, but there are exports consisting mainly of smokers' pipes, cigarettes, buttons, leather, beer, footwear, gloves, homespun cloth and crown corks. With few exceptions, the size of industrial undertakings is small.

The following table gives an indication of the number of establishments in Industry and Commerce.

	Without Workers	*With Workers*	*Total*
Manufacturing industries	1,139	1,398	2,537
Construction	96	165	261
Wholesale and retail trades	2,637	1,748	4,385
Transport	59	97	156
Community and business services	40	68	108
Recreation services ..	123	139	262
Personal services ..	1,153	621	1,774
Miscellaneous	1	24	25
Totals	5,248	4,260	9,508

Village Industries

Lace-making and weaving are old-established village industries. The former is mainly carried on in the Island of Gozo and is a valuable part of the income of the rural household. However, the industry received a setback with the imposition of purchase tax in the United Kingdom which formerly imported about £30,000 worth annually. Weaving has lost much of its importance as a rural industry, and it is carried on in a few undertakings employing a limited number of workers and selling their products on the local market and abroad (mainly in the United Kingdom).

Tourism

On account of the war tourism was at a standstill up to the year 1946 and only Service personnel and trade visitors passed through Malta. During the nine years preceding the war an average of 81,000 passengers per year passed through Malta in transit while an average of 27 cruising steamers brought another 11,700 tourists a year. From April to August 1939, 13 cruising steamers with 5,706 tourists called at Malta.

There is no classification of hotels. Accommodation and cooking are of good standard. The charges "en pension" range between 12s. 6d. and 25s. 0d. per head per day according to the size and locality of the hotel. There is also a "de luxe" hotel which compares very favourably with similar hotels on the Continent. The charge "en pension" is 42s. 0d. per day.

Employment and Labour Supply

During the war years, all able-bodied men other than those on essential work were conscripted for service with the Armed Forces. Education in general and technical instruction was greatly hampered by the air raids, lack of teachers and of accommodation and the general effect was that the production of skilled men was interrupted.

Reconstruction schemes have been making heavy inroads on the numbers of skilled workers and the shortage is being further accentuated by emigration. Efforts are however being made by the Technical Schools, trade classes and adult education to fill up the gaps.

The largest employers on the Island are the Maltese Government and the three Service Departments of the United Kingdom.

Maximum hours of work are regulated by law as follows :—

Factories, workshops and building trade	54 hours a week
Shops, hotels, clubs, and places of public entertainment	60 hours a week

Average hours worked are, however, considerably less.

Average weekly wages in selected occupations in civil industry are shown in the table below for the years 1949, 1950 and 1951 :

AVERAGE WEEKLY WAGES IN CIVIL INDUSTRY: 1949-51*

Trade or Occupation	1949	1950	1951
Construction :			
Electrician	74/6	77/6	84/–
Plasterer	89/–	92/6	95/6
Plumber	93/–	86/6	82/–
Stonemason	164/6	166/–	170/–
Transport :			
Bus Conductor	39/–	45/6	44/–
Bus Driver	78/6	76/6	79/6
Fitter	84/–	92/–	92/–
Manufacturing Industry :			
Blacksmith	81/–	82/6	86/6
Carpenter	87/6	88/–	91/–
Cigarette Maker	57/6	79/6	73/6
Compositor	60/–	78/–	78/6
Foundryman	72/–	78/–	78/6
Labourer, Skilled	103/6	97/6	90/6
Labourer, Unskilled ..	64/6	69/–	72/–
Radio Mechanic	88/–	90/–	79/6
Shipwright	88/6	92/6	103/6
Shoemaker	74/6	75/6	77/–
Tailor	78/6	79/–	80/6
Tinsmith	82/6	73/6	80/–
Welder	89/–	83/–	86/6
Personal Services :			
Cinema Operator	100/–	85/6	80/–
Cook (Hotel/Restaurant) ..	88/6	84/–	86/–
Porter	51/–	n.a.	—
Shop Assistant	72/–	72/–	77/6
Storeman	78/–	84/6	87/–
Cinema Usher	35/–	n.a.	—
Watchman	66/6	68/6	73/6

* Based on a sample survey held annually.

Fuel and Power

The public utility undertakings supplying water and electric current are administered by Government.

The electricity supply in Malta is of the 100-cycle single-phase system. There is one generating station and the power plant consists of four steam turbo-alternators two of which have a generating capacity of 3,750 kW. each, whilst that of the remaining two is of 1,400 and 1,000 kW. respectively. Steam is generated by four oil-fired boilers of which two have a total working output of 25,000 lb. per hour each, the third 27,000 lb. and the fourth 35,000 lb. per hour.

In Gozo four diesel-driven alternators provide a 50-cycle three-phase supply with an output averaging between 90 and 100 kW. Supply of electricity is, however, limited to the hours between sunset and 8 a.m.

Charges for current used for power purposes are on a sliding scale ranging from 5d. to 2d. per unit according to consumption. Current consumed for power purposes in Malta amounts to some 5½ million units annually.

A new power station on a 50-cycle three-phase system financed partly from E.C.A. funds is being constructed. When this is completed current will also be supplied to Gozo through a submarine cable laid across the two-mile channel separating the two islands.

Water Supply

There are no natural springs of water of any importance and practically all water is obtained from underground galleries which are driven at sea level or along the clay layers. As boring for water by farmers and private concerns was having an adverse effect on the yield of water from Government galleries, the Underground Water Ordinance of 1943 was enacted prohibiting the sinking of shafts by private parties and empowering the Water Board to grant licences in certain areas only.

Water supplied for industrial purposes is charged for at 2s. 9½d. per 1,000 gallons, but the quantity used is very small in relation to the total consumption which averages 4,600,000 gallons per day.

Efforts are, however, being made to increase existing supplies and a three-year programme has been drawn up with the object of tapping fresh sources. It is estimated that on completion of this programme the yield will reach about 8,000,000 gallons a day. Mains of a larger diameter are being laid to replace the existing ones which have become inadequate to meet present-day requirements.

III. FINANCE AND TRADE

Public Finance

The following table shows revenues and expenditure of Malta since 1938 :—

Year	1 *Revenue Excluding Column 2*	2 *Grants-in-aid, C.D. & W. grants, etc.*	3 *Total Revenue*	4 *Total Expenditure*
	£	£	£	£
1937–38	1,287,191	14,667*	1,301,858	1,349,297
1938–39	1,336,692	6,323*	1,343,015	1,353,762
1939–40	1,428,226	3,724*	1,431,968	1,412,748
1940–41	1,213,038	951,075†	2,164,113	2,019,112
1941–42	1,441,390	1,390,580	2,831,970	2,727,746
1942–43	1,273,539	2,250,000	3,523,539	3,665,807
1943–44	2,675,589	1,350,784	4,026,373	3,731,831
1944–45	2,924,097	455,806‡	3,379,903	3,693,034
1945–46	3,471,431	536,043‡	4,007,474	3,362,381
1946–47	3,987,696	903,052	4,890,748	4,540,262
1947–48	4,767,459	466,419	5,233,878	4,739,082
1948–49	4,948,212	360,885	5,309,097	4,969,037
1949–50	5,400,075	157,168	5,557,243	5,910,628
1950–51	5,643,290	76,901	5,720,191	5,802,106

* Colonial Development Fund.
† Including £1,075 Colonial Development Fund.
‡ Includes War Damage Repayments.

Although in the immediate pre-war years revenue and expenditure were roughly in balance, the rising needs of the country including the demand for a large measure of primary education, an improved system of public hospitals and capital works for economic development made it clear that increases in revenue would be necessary. Accordingly, a Committee (the Ramage Committee) was set up in 1939 to advise on the revision of the taxation system. The Committee recommended the introduction of higher rates of Succession Duty, a rating system and the imposition of a Corporation tax and stamp duty on dividends, etc. Income tax was excluded from the Committee's recommendations on the grounds that the expense of collection would not justify the tax which could only be imposed on a relatively small portion of the population. It was estimated that these measures would increase the proportion of revenue derived from direct taxation to 6 per cent from 2·5 per cent thus derived in 1938-39. The Committee also advised the reduction of the import duty on grains and flour and a compensating increase in duty on tobacco, beer and other items. Practically all the Committee's recommendations were put into force.

With the outbreak of war in 1939 the financial position of Malta changed. Apart from the necessity of stocking the island there was the urgent need of providing adequate shelters against air attacks. Both measures entailed large capital outlays. For the next seven years public expenditure was dictated by the needs of the war and its aftermath : protection against air attacks, the innumerable problems created by the effects of bombing on the civilian population, an acute food and housing shortage, and a cost of living beyond the reach of the masses.

Siege conditions brought about a serious recession of trade accentuated internally by the dislocation of economic activities of the population. Under these conditions further fiscal reforms were left in abeyance and, except for the imposition of higher rates of import duty on spirits and tobacco and a rise in Succession Duty rates in 1941, the taxation system was left unaltered. A new source of revenue accrued to the Island from the proceeds of a Note Security Fund set up to cover an issue of local note currency made in 1939 to fill the gap caused by the shortage of British notes and coin. A larger circulation of currency due to inflationary tendencies and to full employment brought about a substantial annual yield from this source.

The cost of administration during this period was much higher than the resources available and after appropriating a revenue reserve fund of £111,681 and a Public Lotto Reserve Fund of £10,000, Government relied on grants-in-aid from His Majesty's Government in the United Kingdom to cover its yearly deficits.

Owing to the restrictions on trade with Malta culminating in the acute siege conditions of 1942 the main contributor to revenue—customs duties—fell considerably. Compared with 1938-39 when revenue from customs duties amounted to £652,888 and formed 48·6 per cent. of total revenue, revenue from this source in 1942-43 amounted to only £432,530 or 12·3 per cent of total revenue. With the reopening of communications with the outside world the contribution of customs duty to revenue immediately rose to £1,076,315 in 1943-44, 26·7 per cent of total revenue in that year.

In 1943 the rising cost of living was offset in part by the subsidisation of essential commodities, the cost of which was defrayed direct from Imperial funds. This policy of subsidisation continued for the remainder of the war and the immediate post-war years. In the financial year 1946-47 (the Island still being under Crown Colony administration) the cost of subsidisation was assisted by a contribution of £900,000 from His Majesty's Government. It was recognised that the complete cessation of commodity subsidies (which were then totalling over £1 million annually) might in the circumstances impose an undue burden on the Government and people of Malta.

His Majesty's Government agreed to meet one-half of whatever provision was concluded to be necessary for 1947-48, subject to a maximum contribution of £450,000. Although this grant for 1947-48 had been announced as the last, it was decided in April 1948 in response to representations made by the new Malta Government, that having regard to the short time which Maltese Ministers had had to adjust their food subsidisation policy to the cessation of Imperial contributions, a further and final grant of one-half of Malta expenditure on food subsidies

ANALYSIS OF REVENUE FOR SELECTED YEARS 1938–1951

Head of Revenue	1938–39		1942–43		*Annual Average* 1943–44 to 1947–48		1949–50		1950–51		1951–52	
	Amount £	%	*Amount* £	%	*Amount* £	%	*Amount* £	%	*Amount* £	%	*Amount* £	%
Customs	652,888	48·61	432,530	12·28	1,781,961	41·37	2,762,701	49·71	2,741,863	47·93	3,227,337	52·50
Harbour and Quarantine dues	10,546	·78	—		2,875	·07	8,195	·15	7,825	·14	7,561	·12
Licences, duties, etc.	120,139	8·95	157,401	4·47	323,345	7·51	870,468	15·66	1,015,582	17·75	1,047,693	17·05
Fees of court	7,469	·56	7,218	·21	12,548	·29	17,621	·32	16,059	·28	16,983	·28
Fees of Office and Reimbursements	82,041	6·11	92,512	2·63	157,688	3·66	266,146	4·79	246,724	4·31	285,676	4·65
Posts	42,853	3·19	31,981	·91	56,489	1·31	112,315	2·02	109,948	1·92	120,967	1·97
Telephones	22,088	1·64	18,468	·52	33,755	·78	54,974	·99	68,302	1·19	72,538	1·18
Water and Electricity	183,975	13·70	170,006	4·82	350,144	8·13	527,975	9·50	543,896	9·51	548,513	8·92
Rents	61,328	4·57	42,331	1·20	52,860	1·23	62,022	1·11	61,994	1·08	61,490	1·00
Interest	43,807	3·26	205,122	5·82	112,409	2·61	152,631	2·75	179,762	3·14	171,186	2·79
Widows and Orphans Pensions	8,027	·60	8,258	·23	12,210	·28	18,722	·34	20,542	·36	20,945	·34
Lotteries	58,795	4·38	85,006	2·41	217,634	5,05	343,427	6·18	388,507	6·79	423,999	6·90
Milk Marketing	39,180	2·92	172	—	3,816	·09	30,477	·55	13,492	·24	—	—
Land Sales	1,373	·10	113	—	834	·02	1,050	·02	1,099	·02	532	·01
Note Security Fund	—		—		277,532	6·44	156,413	2·81	206,624	3·61	—	—
Reimbursements of War Damage Expenditure	—		5,502	·16	148,388	3·45	—		—	—	—	—
Grants in Aid			4,767	·14	4,411	·10	—		—	—	—	—
Miscellaneous	2,183	·16	12,152	·34	16,355	·38	14,936	2·7	21,070	·37	50,224	·82
Total Local Revenue	1,336,692	99·53	1,273,539	36·14		82·77	5,400,075	97·17	5,643,290	98·66	6,055,644	98·53
C.D. & W. Funds	6,323	·47	—	—	4,305	·10	157,168	2·83	76,901	1·34	85,097	1·38
War Damage	—	—	—	—	167,216	3·88	—	—	—	—	—	—
Imperial Grants	—	—	2,250,000	63·86	570,900	13·25	—	—	—	—	5,919	·09
Total Revenue	1,343,015	100·00	3,523,539	100·00	4,307,675	100·00	5,557,243	100·00	5,720,191	100·00	6,146,660	100·0

for 1948-49, subject to a maximum of £300,000, would be made, on the express understanding that this contribution was final. In the meantime the Colony had to find ways and means of covering the balance. With this object in view some adjustments in the subsidies structure aiming at lowering the total cost were made in 1947-48 and additional revenue was obtained by increasing the import duties on petrol and tobacco and the excise duty on beer.

Additional revenue was required in 1948-49 to enable the new Government to carry out a policy aimed principally at providing full employment, an improved standard of living and new and extended measures of social services. Opportunity was taken to pave the way for a reduction of the huge gap between direct and indirect taxation, which in 1947-48 contributed 2·9 per cent and 58·5 per cent respectively of the total revenue. Income Tax was imposed to operate from 1st January, 1949, and yielded £359,014 in the first year of operation.

The rates of Succession Duties were raised so as to increase the yield by approximately 50 per cent in the aggregate. To provide for immediate additional revenue, import duties on wines and spirits and on luxury goods were raised and protective tariffs were added on certain commodities. A National Lottery was set up, to be held twice yearly, aiming at preventing the exodus of capital for similar purposes and at attracting capital from abroad. The number of draws has since been increased to four.

Apart from extensions to existing services, new expenditure has consisted mainly in the introduction of a scheme for non-contributory pensions at the age of 60 at a maximum weekly rate of 12s., revision of wages and salaries of Government employees, compulsory education and a scheme for passage assistance to emigrants.

The various changes in revenue and expenditure noted above are reflected in the analysis of revenue and expenditure for selected years (see page opposite and below).

In recent years over 60 per cent of total revenue has been derived from Customs Licences and Duties. These heads of revenue are analysed in the following table :—

REVENUE FROM IMPORT, EXCISE AND OTHER DUTIES 1947-48 TO 1951-52

	1947-48	1948-49	1949–50	1950–51	1951–52
	£	£	£	£	£
Import Duties					
Grain	44,178	28,375	25,772	20,028	50,853
Wines	92,903	124,696	134,173	136,307	90,295
Beer	10,568	12,649	5,310	6,554	7,116
Spirits	225,110	200,419	200,787	203,330	239,678
Cattle	81,723	86,443	74,037	56,927	48,935
Petroleum	220,527	268,024	269,413	275,042	297,967
Sugar	15,696	16,554	10,478	19,258	17,202
Tobacco	611,267	539,411	520,384	486,711	595,777
Minor Items	64,442	52,560	44,678	50,083	53,129
Ad Valorem Duties	1,108,516	1,093,975	1,112,174	1 098,743	1,448,963
	2,474,930	2,423,106	2,397,206	2,352,983	2,849,915
Excise Duties					
Machine-made Cigarettes	74,536	132,768	150,058	151,875	143,254
Local Beer	259,138	221,725	215,436	237,005	234,168
	333,674	354,493	365,494	388,880	377,422
Stamp Duties	65,219	93,389	89,584	92,634	115,771
Entertainment Duties	76,980	77,643	85,740	72,634	94,168
Tombola Duty	23,331	22,842	26,263	23,808	25,469
Licence Duties	86,970	94,545	116,223	123,151	147,573
	252,500	288,419	317,810	312,227	382,981
Income Tax	—	—	359,014	462,747	455,980
Succession and Donation Duties	153,290	131,900	171,402	221,359	188,844
Total	3,214,394	3,197,918	3,610,926	3,738,196	4,255,142

ANALYSIS OF EXPENDITURE FOR SELECTED YEARS, 1938–1951

	1938–39		1949–50		1950–51		1951–52	
	£	%	£	%	£	%	£	%
Public Debt Charges	5,358	·40	11,113	·19	19,543	·34	23,833	·33
Pensions(1)	94,810	7·00	216,922	3·67	219,284	3·78	227,460	3·15
Police and Prisons(2)	109,113	8·06	332,953	5·63	331,564	5·71	395,989	5·49
Judicial and Legal	38,008	2·81	71,751	1·21	75,163	1·30	85,490	1·19
Central Administration	124,141	9·17	309,200	5·23	321,007	5·53	411,156	5·70
Public Works :								
Department	27,968	2·07	79,669	1·35	76,261	1·31	88,566	1·23
Recurrent	131,953	9·75	470,646	7·96	471,205	8·12	373,160	5·17
Extraordinary	120,810	8·92	694,415	11·75	617,352	10·64	717,835	9·95
Posts and Telephones	51,796	3·83	140,129	2·37	175,849	3·03	211,345	2·93
Water and Electricity	124,732	9·21	434,669	7·35	446,320	7·69	506,727	7·03
Labour and Emigration ..	32,507	2·40	181,682	3·07	156,582	2·70	188,968	2·62
Agriculture	33,621	2·48	127,968	2·17	115,544	1·99	136,562	1·89
Medical and Health	221,656	16·37	787,093	13·32	794,182	13·69	1,120,583*	15·54
Milk Marketing	47,322	3·50	—	—	—	—	118,603	1·65
Education(3)	173,063	12·78	534,598	9·04	560,400	9·66	631,555	8·76
Subsidies	—	—	978,779	16·56	925,280	15·95	1,477,772	20·49
Social Services (see Note 1) ..	—	—	449,182	7·60	457,839	7·89	463,293	6·42
Miscellaneous (4)	13,153	·97	89,859	1·52	38,732	·66	32,869	·46
Total Ordinary Expenditure	1,350,011	99·72	5,910,628	100·0	5,802,106	100·0	7,211,766	100·0
Development	3,750		—	—	—	—	—	—
	1,353,761		5,910,628	100·0	5,802,106	100·0	7,211,766	100·0

(1) Not including Old Age Pensions, which make up the greater part of the item " Social Services."
(2) Including Approved School.
(3) Including University Public Libraries and Museum.
(4) Including Fisheries, Co-operation, Tourism and Trade Development, Personal Injuries Scheme, Land Valuation, Housing.
* Includes Refuse Disposal formerly shown under Public Works Annually Recurrent.

In February 1950 the Prime Minister of Malta invited Sir George Schuster to advise his Government on plans to strengthen the fiscal system and economy of the Colony, and, in the event of these being deemed insufficient, to recommend to the Maltese Government the form and extent of assistance which they might seek from His Majesty's Government.

In his report* Sir George made recommendations for balancing the budget, including a reduction in food subsidies, and for the scale of public works in the next few years and the means of financing it. He also recommended that assistance of the order of £1½ million could reasonably be sought from His Majesty's Government. The latter's willingness to provide this sum from C.D. & W. funds over the period 1950-55 was announced in Parliament in May 1950.

Public Debt

There has been no public debt in the Island except for an outstanding amount of £79,081 of the debt known as Massa Frumentaria on which interest is paid at 2½ per cent. per annum. This debt was incurred by the Government of the Order of St. John of Jerusalem in connection with the monopoly of the trade of wheat.

In 1952 short term borrowing was resorted to for the first time and an amount of £500,000 worth of three months' Treasury Bills were raised under legislation contained in the Malta Treasury Bills Act, 1952. The loans were used to finance bulk buying by Government of essential supplies such as wheat and flour.

Debentures issued by the Malta Hotels Co., Ltd., in 1938 in connection with the building of the Phoenicia Hotel are guaranteed by the Government both as to principal and interest. The debentures total £70,000, bear interest at 3½ per cent. per annum and are redeemable at the latest in February 1999; they are secured as a first charge on the buildings constituting the hotel with its equipment.

Statement of Assets and Liabilities

The following is a statement of Assets and Liabilities, excluding special funds deposited in the public Treasury, at the 31st March, 1952.

LIABILITIES

	£	£
Deposits :		
Court Deposits	189,079	
Depositors in the Dollar Investment Fund	2,320	
Depositors in the 2½% Annuities Fund	197	
Other Deposits..	594,081	
		785,677
Consolidated Revenue Fund ..		366,056
Advance by Joint Colonial Fund		53,000
Treasury Bills		500,000
		£1,704,733

ASSETS

		£	£
Special Advances			55,575
Imprests		13,582	
Less amount advanced from Special Funds		100	
			13,482
Essential Supplies			1,011,297
Suspense Account—Unallocated Stores			239,284
Suspense Account—Grant-in-Aid 1944-45			189,545
Investments at Market Value :			
Consolidated Revenue Fund ..		86,101	
Court and Other Deposits ..	£	245,705	
Cash	32,814		
Less balances of Special Funds, etc., in the hands of the Treasurer ..	169,119		
		(−)136,305	
			195,501
Savings Bank			49
			£1,704,733

The balances of the general revenue (now constituting the Consolidated Revenue Fund) at the end of the last twelve years were as follows :—

31st March,	1941 ..	243,263	
,,	1942 ..	347,104	
,,	1943 ..	205,025	
,,	1944 ..	500,190	
,,	1945 ..	189,545	
,,	1946 ..	837,035	
,,	1947 ..	1,190,142	
,,	1948 ..	1,587,096	
,,	1949 ..	1,933,964	
,,	1950 ..	1,549,630	
,,	1951 ..	1,467,649	(including a reserve of £100,000)
,,	1952 ..	366,056	(do. do.)

War Damage and Reconstruction

In 1943 a free grant of £10,000,000 was made by His Majesty's Government in the United Kingdom towards the restoration of war damage in the Island and rebuilding after the war which with the interest accrued (since it could not be spent during the war) amounted to some £11,357,000 before it was finally expended. In 1947 an Act was passed by the Imperial Parliament granting a further sum of £20,000,000, to be made available as and when required after the original grant had been exhausted, in full and final settlement of the cost of making good war damage and of general reconstruction and replanning. A Commission was set up to authorise payment of compensation for war damage. The Malta War Damage Ordinance of 1943 provided also for 10 half-yearly contributions, to be made by owners of property towards the cost of repair. A Business Equipment insurance scheme was also in operation until 1943. The total paid-up contributions by property owners to date amount to £425,172 and a sum of £8,960 was obtained from insurance premiums. Other local receipts, mostly from sales of salvaged material, totalled £111,408, bringing the total contribution towards the cost of war damage from local sources to £545,540. By 1948-49 the original grant of £10,000,000 and the produce thereof bringing it up to £11,356,716 had been exhausted and a first instalment of £200,000 from the £20,000,000 grant was issued by His Majesty's Government just before the close of 1948-49.

The net position of the war damage monies on the 31st March, 1952, was as follows :—

Original Grant (November 1942)	£10,000,000
Interest and Profit on Securities	1,356,716
Second Grant (February 1947)	20,000,000
War Damage Commission Contributions (premiums, etc.)	545,540
Total	£31,902,256
Disbursements	
War Damage Commission	£13,014,863
By Government direct	4,403,720
On Reconstruction	1,152,816
Total	£18,571,399
Net Balance as at 31/3/52	£13,330,857

Currency and Banking

Units of currency used in Malta are pounds (£), shillings (s.), and pence. The Maltese pound contains twenty shillings, and the rate of exchange is £1M=£1 sterling.

Legal tender currency up to the outbreak of the war in September, 1939, was exclusively that of the United Kingdom, under Order-in-Council of the 24th September, 1886, and Ordinance I of 1929. An emergency issue of local notes of £1, 10s., 5s., 2s. 6d., 2s. and 1s. denomination was made during the war and became legal tender concurrently with Bank of England notes and United Kingdom coins. Ordinance I of 1949, issued on the 21st January, 1949, placed the local note issue on a permanent basis and provided for the cessation of legal tender status of £1 and 10s. Bank of England notes. By Proclamation No. IV of 1949 such notes ceased to be legal tender currency in Malta after the 20th September, 1949.

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* Col. 260 of 1950.

All notes issued locally are covered by an equal amount of sterling deposited in a Note Security Fund with the Crown Agents for the Colonies. On 31st March, 1952, the Note Security Fund stood at £15,507,808 against a note circulation of £16,157,882.

The difference between the Note Security Fund and the notes in circulation is entirely due to the heavy depreciation during 1951-52 of securities held by the Fund which are valued at the mean market price on 31st March, 1952. On the same date the circulation of United Kingdom notes was negligible, but notes to the value of over £5,000,000 had been exchanged for local currency when the U.K. notes ceased to be legal tender in 1949.

The currency circulation at 31st March, 1952, was £16,334,282 as compared with £15,674,202 a year earlier and an estimated £1,081,000 in 1938. The 1938 figure consisted entirely of United Kingdom notes and coins; the post-war figures consist almost wholly of local currency but include United Kingdom coins to the value of £156,000 in 1950 and £176,400 in 1951.

Barclays Bank (D.C. & O.) maintain eight branches on the Island. Two foreign banks—the Banco di Roma and the Credit Foncier d'Algerie et de Tunisie whose branches were closed down during the war, have not restarted business.

The two local banks formerly known as Bank of Malta and Anglo-Maltese Bank have now been merged under the name of the National Bank of Malta and maintain three offices, two in Malta and the other in Gozo. Sciclunas Bank has amalgamated with the National Bank of Malta. There is a private Bank under the name of B. Tagliaferro & Sons and a Government Savings Bank.

Bank deposits totalled £33,096,000 at 31st December, 1951; this sum included £17,545,000 deposited with the Government Savings Bank, which had 55,461 depositors. Deposits in the Government Savings Bank have risen from £2,166,780 in 1939.

Local sales of United Kingdom Defence and other Bonds and National Savings Certificates have amounted to £13,607,994, or about £45 per head of the population up to 31st January, 1951. Withdrawals and repayments have totalled £1,490,218, while a sum of £1,895,156 has been paid in dividends up to 31st March, 1952.

Standard and Cost of Living

An index of retail prices is compiled monthly (base date September, 1946). The items taken into account are grouped as follows: food, clothing, rent and repairs, fuel and lighting, tobacco, transport and sundries.

The weighting is based on the results of a family budget inquiry held in September, 1946, which was reported upon by a special committee. The committee adopted the findings of the inquiry with certain modifications.

Average family expenditure resulting from the inquiry, modified in certain details by the committee, was calculated at £4 7s. 7d. The inquiry was based on a sample of 100 families and the resultant average size of family was 5·92. According to the 1948 census the average family works out at 4·7 persons.

The following table shows movements of the index month by month in recent years:—

INDEX OF RETAIL PRICES (SEPT. 1946 = 100)

Month	1946		1947		1948		1949		1950		1951	
	Food Only	*All Items*	*Food Only*	*All Items*	*Food Only*	*All Items*	*Food Only*	*All Items*	*Food Only*	*All Items*	*Food Only*	*All Items*
January	108	103	99	99	125	120	117	116	109	113	123	123
February	101	100	95	97	125	117	118	115	106	110	121	124
March	99	99	95	97	114	113	114	112	106	110	122	125
April	101	99	100	99	111	111	110	110	109	110	127	128
May	98	99	97	102	110	111	105	107	106	111	132	132
June	102	101	98	104	112	111	101	105	116	116	127	129
July	100	100	99	104	111	111	99	104	118	117	126	129
August	98	99	102	105	111	112	105	108	124	122	130	132
September	*100*	*100*	104	107	115	114	102	107	122	122	130	132
October	106	104	109	109	115	114	104	108	126	124	130	132
November	108	104	122	118	117	116	108	112	126	125	130	136
December	106	103	122	118	119	117	108	112	123	123	139	140

External Trade

The total value of imports during the post-war years has been increased by the cost of materials required for the repair of war damage and for the reconstruction works now in progress. Besides this, since the war there has been a general restocking in the Islands and it must be anticipated that as these factors diminish with the course of time the level of imports will decline.

All imports and exports from Malta are subject to an import or export licence. Trade with hard currency countries is restricted to essential supplies which cannot be obtained from alternative sources in the sterling or soft currency areas.

In the tables (pages 21 to 25), Malta's imports and exports are analysed by main commodities and by countries of origin and destination.

The following table summarises Malta's external trade during the period from 1938.

The figures relate to merchandise trade only, excluding bullion and specie.

EXTERNAL TRADE, 1938–51

Year	*Total Imports*	*Re-exports*	*Retained Imports*	*Domestic Exports*	*Import Surplus*
	£	£	£	£	£
1938	3,866,138	468,273	3,397,865	219,114	3,178,751
1939	4,140,049	433,586	3,706,463	226,056	3,480,407
1940	2,379,162	295,152	2,084,010	170,719	1,913,291
1941	..	..	..	..	..
1942	..	..	..	..	..
1943	4,767,877	10,071	4,757,806	22,091	4,735,715
1944	5,270,318	303,555	4,966,763	5,252	4,961,511
1945	9,100,639	530,919	8,569,720	67,155	8,502,565
1946	12,880,507	592,117	12,288,390	114,661	12,173,729
1947	14,365,578	767,940	13,597,638	238,780	13,358,858
1948	16,142,890	1,014,127	15,128,763	242,331	14,886,432
1949	15,260,365	711,773	14,548,592	325,728	14,222,864
1950	16,687,132	841,734	15,845,398	819,026	15 026,372
1951	19,584,128	1,038,806	18,545,322	1,047,114	17,498,208

N.B. .. = not available.

IV DEVELOPMENT

Government Activities and Plans

In Malta's circumstances no clear-cut dividing line can be drawn in the immediate post-war period between reconstruction expenditure, shown above under " Public Finance ", and development. The following issues from the Colonial Development Fund and later under the Colonial Development and Welfare Acts, 1940 and 1945, were made between 1934 and 1951-52.

FREE GRANTS

Description of Scheme	*Amount Received*
	£
Research on the immunisation of goats from undulant fever	4,245
Establishment of a Government Stock Farm and construction of a Hostel for students of the Vocational School. Appointment of an Adviser in Animal Husbandry	22,880
(i) Improvement of Agricultural Marketing Methods. (ii) Appointment of an Adviser in Agricultural Marketing and Controller of Exports of Agricultural Products ..	2,869
Refuse Disposal	10,300
Training of an Artificial Limb Maker ..	220
Appointment of Chief Government Medical Officer	2,550
Visit of a Prison Expert	40
Training of an Officer in Social Welfare..	239
Sinking boreholes at Ta Kandia Area—Free grant of £61,000—Scheme completed	60,995
Tunnel work at Ta Qali—Free grant of £83,310—Scheme in progress	72,930
Laying a new trunk main from Ta Qali to Valletta-Sliema—Free grant of £87,400—Scheme completed	87,384
Establishment of a model winery in Malta and Gozo—Free grant of £12,000—Scheme in progress	1,000
Trade Schools—Free grant £10,000—Scheme not yet started	—
Development of water supply—Free grant £530,000—Scheme in progress ..	153,730
Establishment of an Industrial Training Assistance Scheme—Free grant £35,000—Scheme not yet started	—
Purchase of a Dredger—Free grant £80,000—Scheme in progress	48,000
Afforestation of Crown lands—Free grant £500—Scheme not yet started	—
	£467,382

(In addition to the above a grant of £55,255 was made in 1948-49 out of the allocation for Research under Central Schemes for research into " Brucella Melitensis " over a period of four years in the United Kingdom.)

LOANS

Description of Scheme	*Amount of Loan*
	£
Research on the immunisation of goats from undulant fever	3,900
Loan free of interest for the first two years from date of advance and thereafter at 3½% per annum. Repayable in five equated annuities commencing with the third year. Fully repaid in 1944, with interest amounting to £418 17s. 6d.	
Export of Agricultural Produce—Shed Accommodation	3,000
Loan at 3½% per annum repayable in seven equated annuities commencing from date of advance. Fully repaid in 1947 with interest amounting to £434 8s. 8d.	
Improvement of Agricultural Marketing Methods. Appointment of an Adviser in Agricultural Marketing and Controller of Exports of Agricultural Products ..	400
Loan free of intetesr—Repaid in 1938-39.	
Development of the supply of water for Agricultural purposes	352
Loan free of interest for the first five years from date of advance and thereafter at 3½% per annum. Repayable in 20 equated annuities commencing from the sixth year. Capital and interest repaid up to 1949 amount to £112 14s. 5d.	
	£7,652

The following is a summary of actual issues from the Colonial Development and Welfare Vote up to 1951-52.

Year	*Free Grant*	*Loan*	*Total*
	£	£	£
1935-36	9,050	1,650	10,700
1936-37	11,630	2,470	14,100
1937-38	10,600	180	10,780
1938-39	5,145	200	5,345
1939-40	1,049	2,502	3,551
1940-41	210	650	860
1941-42	580	—	580
1942-43	—	—	—
1943-44	784	—	784
1944-45	779	—	779
1945-46	615	—	615
1946-47	1,170	—	1,170
1947-48	16,344	—	16,344
1948-49	76,218	—	76,218
1949-50	166,720	—	166,720
1950-51	91,050	—	91,050
1951-52	75,438	—	75,438
	467,382	7,652	475,034

Malta's territorial allocation from the U.K. under the 1946 C.D. and W. Act was £1 million, increased by another £1½ million under the 1950 Act. The 1950 allocation had not been drawn by Malta by mid 1952 but practically the whole of the 1946 allocation of one million pounds had been taken up in approved schemes of which one £½ million was for the development of water supplies. Over and above these territorial allocations Malta received £132,000 from the central C.D. and W. funds mainly for the construction of laboratories at the University of Malta.

PRINCIPAL IMPORTS 1938, 1950 AND 1951

	Unit of Quantity	1938			1950			1951		
		Quantity	*Value* (£)	*Principal Countries of origin* (*with values in £000s*)	*Quantity* *	*Value* (£)	*Principal Countries of origin* (*with values in £000s*)	*Quantity* *	*Value* (£)	*Principal Countries of origin* (*with values in £000s*)
Animals, Living, for food ..	tons	4,705	121,364	Yugoslavia (53), Morocco (23), Poland (22), Hungary (10).	2,600,235	376,432	Libya (259), Bulgaria (77), Turkey (14), Hungary (13).	2,479,175	391,628	Libya (231), Bulgaria (56), Turkey (32), Hungary (23), Netherlands (18).
Butter and Substitutes ..	,,	1,008	64,363	New Zealand (23), Netherlands (22), Eire (13), New Zealand (8).	1,301,769	224,910	U.K. (99), Australia (85), Eire (40).	1,664,078	308,930	U.K. (198), Australia (76), Eire (19).
Cheese	,,	721	55,268	Canada (5), Albania (4), Italy (21)	722,355	185,010	Italy (108), Australia (29), Denmark (17).	1,027,640	276,800	Italy (167), Australia (40), Denmark (29).
Fruit	..	..	58,517	Italy (21), U.S.A. (16), Canary Is. (6), Iraq (2), U.K. (2), Brazil (2).	..	347,483	Italy (170), Libya (84), Australia (32), Canary Is. (10), Turkey (8), Ceylon (7), Iraq (7).	..	431,162	Italy (179), Libya (133), Australia (43), Iraq (14), Turkey (14), Canary Islands (8), Ceylon (2).
Wheat	tons	32,669	232,613	Rumania (63), Australia (63), Canada (43), Argentina (22).	72,613,370	2,057,943	Canada (1,867), Australia (187), Tunis (4).	48,718,191	1,741,842	U.S.A. (1,317), Australia (318), Canada (107).
Other Grain and Products thereof (mainly flour) ..	,,	12,396	152,661	Australia (75), Canada (27), U.K. (20), U.S.A. (13), Belgium (6).	563,726	72,876	U.K. (63), Netherlands (5), Czechoslovakia (2).	4,656,740	285,910	U.K. (136), Australia (116), Belgium (20), Netherlands (5), Canada (4), Czechoslovakia (2).
Meat	,,	1,482	93,197	Poland (23), Denmark (20), U.K. (15), Lithuania (10), Australia (9)	5,215,015	556,293	Australia (292), Netherlands (94), Denmark (69), Paraguay (38), U.K. (29), Italy (18).	2,794,613	519,974	Australia (232), Denmark (54), Netherlands (53), Argentine (28), Italy (20), Paraguay (16), Poland (14), Madagascar (10), U.K. (7),
Milk	..	..	96,968	Netherlands (55), Norway (26), U.K .(10), Denmark (2), Australia (1).	..	625,159	U.K. (315), Netherlands (262), Denmark (19), France (10), Australia (7).	..	763,742	U.K. (344), Netherlands (313), New Zealand (48), Eire (29), Denmark (22), Australia (6).
Cotton Seed; Olive and other Oils ..	gallons	509,679	53,259	Denmark (26), U.K. (16), Netherlands (3), Italy (3), Tunis (3).	3,077,068	348,362	U.K. (342), Italy (2), Tunis (2).	2,476,665	330,534	U.K. (323), Italy (6).
Sugar	tons	10,298	75,040	U.K. (40), Netherlands E. Indies (18), Poland (7), Belgium (6).	7,455,404	355,262	U.K. (329), Czechoslovakia (22), Netherlands (4).	8,672,153	568,012	U.K. (567).
Tobacco	,,	452	79,310	U.K. (49), U.S.A. (21), Greece (6), Turkey (1), S. Rhodesia (1).	572,425	316,260	U.S.A. (202), U.K. (102), Greece (4), Tunis (4).	762,602	526,606	U.S.A. (224), U.K. (183), India (7), Netherlands (4), Turkey (4), Greece (2).
Wines	gallons	1,363,505	65,156	Greece (37), Italy (7), Cyprus (6), Spain (4), France (4), U.K. (4).	6,268,250	180,002	Cyprus (59), Greece (48), Italy (32), France (11), Spain (10), U.K. (8).	4,594,676	181,264	Cyprus (51), Greece (50), Italy (36), France (17), Spain (13), U.K. (10).
Spirits	,,	58,541	41,861	U.K. (33), France (5), Netherlands (1).	310,276	120,165	U.K. (72), France (36), Italy (3), British West Indies (3).	448,541	168,269	U.K. (104), France (48), Italy (4), Canada (4), B.W.I. (3), Netherlands (3).
Other Food, Drink and Tobacco	..	..	411,694	..	..	1,863,094		..	1,644,658	..
Coal	tons	125,172	160,504	Germany (76), U.K. (52), Poland (29), Netherlands (3).	20,501	101,807	U.K. (all)	17,613	127,576	U.K. (all).
Fuel Oils	,,	17,263	42,838	Dutch W. Indies (35), Persia (8),	37,425	279,289	Iran (107), Netherlands (74), Java (62), Iraq (37).	37,082	371,005	Indonesia (140), France (124), Iran (36), Italy (34), Venezuela (30).
Petrol Spirits	gallons	2,387,248	86,345	Rumania (all)*	18,736,195	181,237	Iran (156), Iraq (25)	21,248,332	291,455	Iran (150), Italy (80), France (43), Indonesia (17).
Aviation Spirit	,,	820,628	54,722	Persia (all)	18,686,558	318,110	Iran (223), Iraq (95)	27,481,700	532,926	U.S.A. (289), Indonesia (112), Iran (104), Italy (67).
Petroleum	,,	4,969,378	79,287	Rumania (all)	28,845,385	267,285	Iran (207), Iraq (60)	33,907,792	360,697	Italy (166), Indonesia (113), Iran (66), Venezuela (15).
Wood and Timber	..	..	55,931	Yugoslavia (28), British W. Africa (5), Italy (5), Germany (4).	..	199,661	Trieste (87), Italy (38), Austria (30), Brazil (10), U.K. (9), Czechoslovakia (8).	..	217,504	Italy (142), Austria (24), Canada (10).
Other Raw Materials ..	..	..	40,593	..	..	213,970		..	201,026	..
Footwear	pairs	344,488	49,938	U.K. (21), Italy (12), Czechoslovakia (8), Japan (6).	..	381,616	U.K. (235), Czechoslovakia (69), Italy (40), Union of S. Africa (15).	513,143	299,520	Czechoslovakia (55), Italy (52), U.K. (16), Union of S.A. (13).

* 1950 and 1951 quantities are in *kilos* and *litres* (except in the case of Coal and Fuel Oils) as against tons and gallons shown in 1938.

PRINCIPAL IMPORTS 1938, 1950 AND 1951—*continued*

	Unit of Quantity	1938			1950			1951		
		Quantity	Value (£)	Principal Countries of origin (with values in £000s)	Quantity *	Value (£)	Principal Countries of origin (with values in £000s)	Quantity *	Value (£)	Principal Countries of origin (with values in £000s)
Textile Fabrics :										
Cotton Piece Goods ..	sq. yards	3,919,301	98,550	U.K. (68), Italy (22), India (3), Belgium (2).	3,231,371	395,065	U.K. (244), Italy (87), India (30), Netherlands (10), Japan (10).	3,469,559	526,309	U.K. (330), Italy (96), India (29), Japan (21), Belgium (14), Netherlands, (9).
Woollen Piece Goods ..	,,	676,027	74,718	U.K. (54), Italy (16), Germany (3), Japan (1).	687,394	305,987	U.K. (273), Italy (26), Czechoslovakia (5).	580,328	319,442	U.K. (264), Italy (49).
Art. Silk Piece Goods ..	,,	1,137,239	45,379	U.K. (15), Italy (15), Switzerland (4), France (4).	1,694,057	296,628	U.K. (229), Italy (51), France (8), Japan (5).	2,775,939	542,987	U.K. (374), Italy (119), Japan (22), France (14).
Silk Piece Goods	,,	124,398	9,901	Japan (4), Italy (3), China (1) ..	1,707	1,050	Italy (1).	4,892	2,191	Italy (1).
Apparel and Slops ..	..	..	101,781	U.K. (53), Japan (21), Italy (10), Germany (4), Czechoslovakia (4)	..	276,797	U.K. (224), Czechoslovakia (21), Italy (16), U.S.A. (4), Netherlands (3).	..	391,713	U.K. (310), Italy (31), Czechoslovakia (18), U.S.A. (5), Netherlands (3).
Hosiery	..	..	42,218	U.K. (21), Japan (10), Italy (5), Germany (3), Czechoslovakia (1)	..	404,312	U.K. (341), Italy (47), Japan (4), Czechoslovakia (3).	..	390,634	U.K. (295), Italy (63), Japan (10), Czechoslovakia (8), Switzerland (6.)
Other (incl. Yarns) ..	..	..	90,427	..	..	247,478	..	..	323,533	..
Cement	tons	13,202	21,784	Yugoslavia (14), U.K. (3), Poland (2), France (1).	23,554,971	133,003	Yugoslavia (68), U.K. (34), Italy (14), France (13), Denmark (3).	27,022,872	187,776	Yugoslavia (94), U.K. (62), Italy (11), France (9), Denmark (6).
Electrical Goods	..	..	18,878	U.K. (7), Germany (4), Japan (2), Italy (2), U.S.A. (2).	..	181,672	U.K. (146), Netherlands (12), Italy (10), Germany (4), Canada (3).	..	156,000	U.K. (106), Italy (21), Netherlands (12), Germany (9).
Metals and Metal Manufactures	..	..	213,618	U.K. (95), Germany (34), Belgium (32), U.S.A. (13), Italy (13).	..	1,000,099	U.K. (713), France (65), Germany (62), Italy (54), Belgium (22), Sweden (21), Netherlands (10), U.S.A. (10)	..	1,277,017	U.K. (844), Belgium (88), Italy (87), Germany (79), Netherlands (38), Yugoslavia (30), France (25), Sweden (25), U.S.A. (19).
Motor Vehicles	..	..	73,955	U.K. (48), U.S.A. (11), Canada (11), Italy (2), Germany (1).	..	388,610	U.K. (337), France (16), U.S.A. (10), Italy (8), Canada (8).	..	554,113	U.K. (491), France (21), U.S.A. (13), Italy (12), Canada (4).
Soap	..	..	66,470	U.K. (58), Tunis (6), Germany (1).	..	149,111	U.K. (149)	..	296,678	U.K. (295).
Other Manufacturers ..	..	..	497,115	..	..	2,193,932	..	..	2,712,381	..
Animals, Living, not for food	..	..	8,581	Tunis (7), U.K. (0·5), Albania (0·3), Yugoslavia (0·3).	..	31,150	Netherlands (8), U.K. (6), Cyprus (6), Italy (4), Ceylon (4).	..	19,549	U.K. (5), Cyprus (4), Italy (4), Netherlands (3).
Cattle Foods :										
Barley	tons	5,989	34,402	Rumania (24), Syria (10) ..	1,764,768	39,509	Tunisia (32), Libya (4), Lebanon (3).	950,853	29,255	Spanish Morocco (12), Tunisia (12), Lebanon (5).
Beans	,,	14,005	102,353	Turkey (59), Tunis (16), Syria (9), Italy (9), China (7).	18,252,710	450,266	Tunisia (247), Italy (167), Algeria (31), Turkey (5).	17,648,341	588,624	Italy (551), Tunisia (20), Algeria (10).
Caravances	,,	3,542	31,359	Syria (17), Morocco (6), Turkey (3), Palestine (3).	6,763,094	198,072	Morocco (52), Turkey (39), Algeria (32), Tunisia (27), Bulgaria (23), Lebanon (18).	6,109,975	221,366	Morocco (74), Turkey (67), Italy (22), Tunisia (19), Bulgaria (17), Algeria (12).
Cotton Seed	,,	4,943	24,752	Turkey (13), Syria (10), Cyprus (2)	—	—		529,000	28,062	Syria (15), Lebanon (5).
Indian Corn	,,	4,922	28,367	Rumania (15), Yugoslavia (11), Bulgaria (2).	1,225,000	29,505	Lebanon (14), Tunisia (9), Iraq (7).	297,730	9,278	Tunisia (6), Syria (3).
Saggina	,,	7,633	50,770	Syria (46), Palestine (2), Iraq (2)	10,807,871	264,737	Lebanon (219), Syria (30), Morocco (15).	6,286,583	206,605	Lebanon (50), Syria (45), Morocco (39), Tunisia (36), Turkey (21), Algeria (19).
Other	..	..	59,331	..	..	127,923		..	259,575	..
Bullion :										
Gold	oz.	14	95	U.K. (all)	3,331	50,863	France (47), U.K. (4)	11,224	56,753	France (50), U.K. (6).
Silver	,,	18,077	1,633	U.K. (1·59), Tunis (0·04).. ..	1,874	726	U.K. (all)	3,669	1,230	U.K. (all).
Platinum	,,	—	—	—	13	1,111	U.K. (all)	4	94	U.K. (all).
Specie :										
Gold	,,	437	1,740	U.K. (all)	—	—		—	—	—
Other	kilo	—	—		2,500	20,000		—	—	—
Total Imports ..			3,869,606			16,759,832			19,642,205	

* 1950 and 1951 quantities are in *kilos* and *litres* (except in the case of Coal and Fuel Oils) as against tons and gallons shown in 1938.

PRINCIPAL DOMESTIC EXPORTS 1938, 1950 AND 1951

	Unit of Quantity	1938			1950			1951		
		Quantity	*Value (£)*	*Principal Countries of Destination (with values in £000s)*	*Quantity* *	*Value (£)*	*Principal Countries of Destination (with values in £000s)*	*Quantity* *	*Value (£)*	*Principal Countries of Destination (with values in £000s)*
Potatoes	tons	11,910	116,860	Netherlands (51), U.K. (48), Belgium (11), Ceylon (6).	10,057,879	290,880	U.K. (199), Ceylon (44), Belgium (36), Netherlands (6).	6,393,150	204,330	U.K. (136), Ceylon (65), Netherlands (3).
Other Fruit and Vegetables	..	..	25,781	..	..	10,758	..	..	15,274	U.K. (14), Libya (1).
Other Food, Drink and Tobacco.	..	..	10,209	..	..	11,363	..	..	71,325	..
Hides and Skins	tons	418	17,964	Turkey (13), Netherlands (2), Italy (1), Palestine (1).	461,788	58,167	Turkey (23), Italy (15), Palestine (7), Greece (4), Netherlands (3).	710,680	57,333	Turkey (21), Italy (16), Israel (12), U.K. (7).
Metal Scrap	,,	1,246	4,548	Italy (3), U.K. (1)	17,144,828	285,293	Italy (152), U.K. (86), Libya (28), Belgium (17).	12,984,485	445,372	Italy (287), Netherlands (129), Libya (16), U.K. (4), Egypt (2), Belgium (1).
Wadding	,,	22	710	Palestine (0·5), Egypt (0·2)	15,712	4,345	Egypt (3), Greece (1).	18,200	2,714	Egypt (all).
Cotton	kilos	—	—	—	36,300	6,750	Italy (all).	25,171	9,185	Italy (5), U.K. (3), Netherlands (1).
Other Raw Materials ..	..	..	16,408	..		10,862	..	..	46,355	..
Buttons	gross	299,308	9,104	U.K. (all)	352,052	40,347	U.K. (30), Norway (8), Netherlands (1).	407,942	39,680	U.K. (18), Norway (10), Netherlands (8).
Crown Corks	,,	..	154	Cyprus (all*)	77,315	8,592	Cyprus (5), Fed. of Malaya (2).	413,400	13,443	U.K. (7), Libya (3), India (1).
Gloves	doz. prs.	..	..	..	32,840	49,492	U.K. (24), Australia (17), Union of S.A. (5), New Zealand (2).	4,260	86,963	Australia (30), Union of S. Africa (26), U.K. (15), New Zealand (11).
Lace	..	..	..	..	..	3,891	U.K. (all).	..	5,428	U.K. (3), Australia (1).
Smoking Requisites ..	..	..	15,545	U.K. (all)	..	31,157	U.K. (all).	..	15,793	U.K. (15).
Other Manufactures ..	..	..	1,000	..	..	7,071	..	..	28,181	..
Miscellaneous	..	..	831	..	..	58		..	5,738	..
Total Domestic Exports of Merchandise			219,114			819,026			1,047,114	

* Weights are in *kilos* for 1950 and 1951 and in *tons* for 1938.

PRINCIPAL RE-EXPORTS, 1938, 1950 AND 1951

	Unit of Quantity	1938			1950			1951		
		Quantity	*Value (£)*	*Principal Countries of Destination (with values in £000s)*	*Quantity* *	*Value (£)*	*Principal Countries of Destination (with values in £000s)*	*Quantity* *	*Value (£)*	*Principal Countries of Destination (with values in £000s)*
Cigarettes	tons	71	71,723	H.M. Ships (64), Other Ships' Stores (5), Egypt (1).	99,262	183,319	H.M. Ships' Stores (121), Other Ships' Stores (36), Fed. of Malaya (18).	112,104	215,568	H.M. Ships' Stores (184), Other Ships' Stores (15), U.K. (11).
Wines and Spirits	gallons	17,866	20,441	H.M. Ships (10), Egypt (3), Other Ships' Stores (2), Turkey (1).	137,939	67,726	H.M. Ships' Stores (19), Libya (17), Other Ships' Stores (6), Turkey (6), Italy (4), U.K. (4).	134,582	67,669	H.M. Ships' Stores (19), Libya (17), Italy (5), Turkey (5), Other Ships' Stores (3), U.K. (1).
Other Food, Drink and Tobacco	..	..	108,370	..	..	126,004	..	..	123,345	..
Coal	tons	112,678	176,872	Merchant Ships' Bunkers (all*) ..	1,853	14,135	Merchant Ships' Bunkers (all)	1,445	13,662	Merchant Ships' Bunkers (13).
Fuel Oil	„	17,192	39,065		11,350	85,327		10,459	90,918	Merchant Ships' Bunkers (71). Libya (12), Other Ships' Stores (7),
Metal Scrap	„	—	—	—	—	—		..		..
Aviation Spirit	gallons	—	—	—	7,214,487	95,332	Commercial Aircraft Stores (95).	10,471,543	227,547	Commercial Aircraft Store (87), Merchant Ships' Bunkers (47), Libya (39), Palestine (26).
Petrol Spirit	„	36,922	2,707	Tunis (2)	617,094	10,382	Libya (9), Other Ships' Stores (1).	..	..	..
Other Raw Materials ..	..	..	1,206	..	..	12,846	..	..	96,294	..
Manufactures	..	..	43,282	..	..	211,179	..	..	203,786	..
Miscellaneous	..	..	4,607	U.K. (all*)	..	35,484	Palestine (21), U.K. (6), Ceylon (6).	..	17	..
Total Merchandise Re-exports			468,273	..		841,734		..	1,038,806	..
Bullion :										
Silver	oz.	24,625	2,062	Gibraltar (1), Libya (1).	1,280	450	Italy (all).	1,376	955	Italy (all).
Specie :										
Gold	„	88	342	U.K. (all)	—	—				
Copper	..	..	400	U.K., Gibraltar	—	—				

* Quantities in *kilos* and *litres* (except for Coal and Fuel Oil) compared with tons and gallons for 1938.

ANALYSED BY COUNTRIES OF ORIGIN AND DESTINATION 1938, 1950 AND 1951

	Total Imports (by Countries of Origin)						Total Exports (by Countries of Destination)					
	1938		1950		1951		1938		1950		1951	
	Value (£)	%	*Value* (£)	%	*Value* (£)	%	*Value* (£)	%	*Value* (£)	%	*Value* (£)	%
United Kingdom	1,077,835	27·9	7,032,661	42·1	8,554,715	43·7	116,841	17·0	477,252	28·7	353,174	16·9
Other Commonwealth :												
Australia	153,266	4·0	653,034	3·9	900,987	4·6	...	...	21,223	1·3	34,556	1·7
Canada (with Newfoundland)	98,956	2·6	1,890,557	11·3	156,908	0·8	...	...	139	—	827	0·04
Ceylon	15,704	0·4	276,252	1·7	80,971	0·4	5,749	0·8	50,172	3·0	67,105	3·2
Cyprus	11,560	0·3	79,791	0·5	69,277	0·4	474	0·1	15,074	0·9	68,106	3·3
Eire	17,779	0·5	130,974	0·9	54,205	0·3	227	—	500	—	—	—
Gibraltar	661	—	1,429	—	3,794	—	1,098	0·2	165	—	2,448	0·1
India	11,261	0·3	50,537	0·3	65,706	0·3	210	—	2,139	0·1	1,062	0·06
New Zealand	32,042	0·8	8,583	—	60,691	0·3	...	...	2,658	0·2	11,545	0·6
Union of South Africa	2,091	0·1	38,233	0·2	23,231	0·1	...	...	5,568	0·3	26,305	1·3
Other	18,031	0·5	38,561	0·2	88,736	0·5	2,613	0·4	24,344	1·5	5,153	0·2
	361,351	9·3	3,167,951	19·0	1,504,506	7·7	10,371	1·5	121,982	7·3	217,107	10·5
Foreign Countries :												
Belgium	107,787	2·8	44,988	0·3	233,704	1·2	12,262	1·8	55,168	3·3	3,150	0·3
Czechoslovakia	49,803	1·3	261,217	1·6	175,751	0·9	...	...	—	—	—	—
Denmark	55,081	1·4	156,193	0·9	171,468	0·9	84	—	1,743	0·1	1,919	0·1
Egypt	68,160	1·8	56,591	0·3	36,471	0·2	9,049	1·3	15,110	0·9	49,154	2·4
France	57,395	1·5	251,786	1·5	413,525	2·1	1,359	0·2	1,605	0·1	1,652	0·1
Algeria	2,185	0·1	77,517	0·5	57,260	0·3	...	...	—	—	—	—
Morocco	31,245	0·8	116,288	0·7	159,374	0·8	50	—	730	—	1,921	0·1
Tunis	44,716	1·2	351,350	2·1	177,599	0·9	6,341	0·9	8,368	0·5	1,247	0·1
Germany	203,969	5·3	169,440	1·0	233,363	1·2	938	0·1	2,342	0·1	958	0·1
Greece	48,972	1·3	55,965	0·3	61,302	0·3	2,627	0·4	10,992	0·8	6,973	0·3
Iraq	6,731	0·2	230,397	1·4	14,322	0·1	...	...	265	—	256	—
Italy	271,187	7·0	1,341,997	8·1	2,604,991	13·3	8,426	1·2	215,493	13·0	383,342	18·3
Japan	104,041	2·7	84,942	0·5	152,206	0·8	975	0·1	—	—	—	—
Lebanon	...	...	269,595	1·6	94,156	0·5	...	...	1,175	0·1	594	—
Libya	1,432	—	...	...	467,660	2·4	4,035	0·6	96,562	5·8	148,163	7·1
Netherlands	131,251	3·4	609,817	3·7	662,431	3·4	57,204	8·3	15,040	0·9	145,410	7·0
Netherlands Indies	64,713	1·7	77,917	0·5	369,701	1·9	...	...	—	—	—	—
Norway	30,520	0·8	18,115	0·1	48,021	0·2	1,594	0·2	9,349	0·6	11,997	0·6
Israel	5,729	0·1	190	—	2,790	—	3,237	0·5	29,401	1·8	39,454	1·9
Persia	63,806	1·7	...	...	356,053	1·8	...	...	—	—	554	—
Poland	95,337	2·5	5,491	—	25,611	0·1	...	...	—	—	—	—
Rumania	275,666	7·1	...	...	300	—	702	0·1	233	—	—	—
Sweden	23,815	0·6	60,450	0·4	70,170	0·4	685	0·1	477	—	1,499	0·1
Syria	92,431	2·4	41,482	0·2	121,083	0·6	...	...	2,787	0·2	3,159	0·1
Tangier	...	...	9,361	—	10,288	—	...	...	235	—	—	—
Turkey	78,670	2·0	98,980	0·6	188,938	1·0	15,740	2·3	29,017	1·7	41,905	2·0
United States of America	138,394	3·6	249,833	1·5	1,905,979	9·7	1,388	0·2	651	—	3,902	0·2
Venezuela	1,851	—	...	...	44,648	0·2	...	...	—	—	—	—
Yugoslavia	115,690	3·0	77,240	0·5	126,778	0·7	230	—	1,206	0·1	886	—
Other	254,262	6·6	1,769,378	10·6	538,964	2·7	5,885	0·99	8,982	0·5	3,838	0·2
	2,424,839	62·7	6,486,520	38·9	9,524,907	48·6	132,811	19·3	506,931	30·5	851,933	40·8
H.M. Ships' Stores	1,005	—	—	—			197,896	28·8	291,562	17·6	381,698	18·4
Other Ships' Stores			—	—			13,134	1·9	64,418	3·9	36,457	1·7
Merchant Ships' Bunkers	—	—	—	—			215,882	31·4	99,462	6·0	157,294	7·5
Aircraft Stores (including Fuel)	—	—	—	—			452	—	99,153	6·0	88,257	4·2
Other	1,108	—	—	—			—	—	—	—	—	—
Total Imports/Exports	3,866,138	100·0	16,687,132	100·0	19,584,128	100·0	687,387	100·0	1,660,760	100·0	2,085,920	100·0

Notes to the preceding tables of External Trade. : ... = not known or not shown separately. — = nil or negligible. * = apart from an insignificant proportion.

CYPRUS

I GENERAL BACKGROUND

Geographical Features

Cyprus is an island situated in the north-east corner of the Mediterranean in latitude 35° N. and longitude 33° E. and separated from the southern shores of Turkey by a strait about 40 miles wide; it is 240 miles distant at the nearest point from Port Said and some 60 miles from the Lebanon. Local time is two hours ahead of Greenwich mean time.

The Island is the third largest in the Mediterranean, with an area of 3,572 square miles, being about half the size of Wales. Its greatest length is 140 miles and greatest breath 60 miles. The main topographical features are: the narrow limestone Kyrenia range of mountains extending in an unbroken chain for nearly 100 miles along the north coast, at an average height of 2,000 feet; a broad central plain, known as the Mesaoria, running for some 60 miles from west to east; the extensive igneous Troodos massif rising to over 6,000 feet to the west of the Island; and the narrow coastal plains between the mountains and the sea. The rivers are little more than mountain torrents which bring down flood water after the winter rains; there are few perennial streams and none of any volume.

The total land area of 3,572 square miles or nearly seven million donums, is distributed as follows :—

	sq. mls.	*donums*
State Forest	623	1,206,010
Privately owned agricultural land ..	2,340	4,530,986
Communal grazing lands and vacant Crown lands	361	698,280
Town and village sites, roads, river beds, etc.	248	480,116
	3,572	6,915,392

The Island is divided administratively into six districts, each containing and taking its name from one of the six main towns :—

	sq. mls.	*donums*
Nicosia	1,053	2,039,000
Kyrenia	247	478,000
Famagusta	761	1,473,000
Larnaca	435	842,000
Limassol	537	1,040,000
Paphos	539	1,044,000
	3,572	6,915,000

Four major natural climatic areas can be distinguished, composed as follows :—

	sq. mls.	*donums*
North Coast (Kyrenia and part of Famagusta)	567	1,098,000
Central Plain (parts of Nicosia, Famagusta, Larnaca)	1,266	2,451,000
Hills (parts of Nicosia, Limassol, Paphos)	1,068	2,068,000
South Coast (parts of Larnaca, Limassol, Paphos)	671	1,299,000
	3,572	6,915,000

The climate varies greatly according to region. In the central plain there is a great disparity between summer and winter temperatures. The summer months are hot, dry and almost cloudless. In late July and August the mean maximum day temperature is 100° F. and the mean night temperature 70° F. The winter is generally sunny but there are frequent cold spells between the beginning of December and end of February. The rainy season lasts from October to March with an average total rainfall of about 18 inches. In the coastal area the climate tends to be humid throughout the year, especially in summer, but in other respects it resembles that of the central plain. In the hill and mountain regions summer is pleasant and invigorating with clear skies, low humidity and only occasional light showers. July and August are the warmest months, when the mean maximum day temperature is about 80° F. and the minimum night temperature 55° F. During the winter heavy rain and snow are common. The coldest months are January and February, when the mean maximum day temperature is about 40° F. and the minimum night temperature about 20° F. The average annual rainfall in this area is over 30 inches.

The following table gives particulars of rainfall at the principal stations during recent years :—

RAINFALL (Inches)

	Actual					*20-year Average to*
	1946	1947	1947	1949	1950	1949
Nicosia	15·3	14·7	14·3	19·6	11·6	14·4
Kyrenia	20·0	13·7	21·1	14·7*	12·7	21·3
Famagusta ..	14·9	15·8	16·4	26·1	10·6	16·3
Larnaca ..	12·3	12·7	17·7	19·2	7·8	16·7
Limassol ..	15·1	22·8	17·7	25·6	10·2	17·9
Paphos	12·2	15·3	18·7	20·1	11·3	17·9
Platres (Hills)	33·6	37·9	36·8	—	23·4	30·3
Saittas (Hills)	—	—	—	32·3		

* April to December only.

Population

A population census was carried out during 1946 following an interruption in the war period of the decennial series begun in 1881; the report and tables were published in 1949. Official estimates for post-censal years have been made only in the case of the principal totals.

The civil population of the Island was estimated to be approximately 494,000 at the end of 1951, and was expected to reach 500,000 in the first months of 1952. The following table shows the totals and geographical distribution of the population for the census year, 1946, and for 1950:

POPULATION BY AREAS, 1946 AND 1950

District	1946 *Census*			1950 (1)		
	Urban(2)	*Rural*	*Total*	*Urban*(2)	*Rural*	*Total*
Nicosia	34,485	111,480	145,965	37,728	119,435	157,163
Kyrenia	2,916	25,258	28,174	3,165	26,982	30,147
Famagusta	16,194	78,280	94,474	18,693	82,912	101,605
Larnaca	14,772	37,417	52,189	15,593	40,654	56,274
Limassol	22,799	52,622	75,421	25,124	55,934	81,058
Paphos	5,803	48,088	53,891	6,170	51,916	58,086
Total	96,969	353,145	450,114(3)	106,473	377,833	484,306

(1) Mean civil population: for definition see Medical Report, 1946. (2) District Towns.

(3) There were also enumerated in 1946, 4,940 military in camps, 6,476 persons in Jewish immigrant camps and 1,006 German prisoners-of-war, making a total *de facto* population of 462,536.

The end-1951 estimated population of 494,000 represents a density of approximately 138 persons to the square mile. Average density is highest in Limassol District at almost 150 persons to the square mile, and is lowest in Paphos District at something over 105 persons to the square mile.

The Greek community forms approximately 80 per cent of the total civil population, and the Turkish community about 18 per cent. The remaining two per cent is composed of the Armenian, Maronite, English and Jewish communities, in that order of numerical importance, and of a small number of others. More than 98·5 per cent of the civil population fall by religion and language into one of the three main communities: Greek Orthodox/Greek, Moslem/Turkish, and Armenian Gregorian/Armenian. The Greek and Turkish communities in particular are self-contained; their cleavage—which excludes intermarriage except after conversion—extends not only to religion and education, but also to trade, finance, and professional affairs.

For the census year, 1946, the civil population can be analysed by sex and age groups. Although there is evidence of some mis-statement of ages, this is not of a kind likely to give rise to significant error where the groupings are broad; in the following table the crude unsmoothed data are used :—

CENSUS POPULATION, 1946, BY AGE AND SEX

Age Group in years	*Males*		*Females*		*Persons*	
	Numbers	*Per* 1,000	*Numbers*	*Per* 1,000	*Numbers*	*Per* 1,000
Under 1 year	6,847	31	6,375	28	13,222	29
1–13	66,545	299	64,162	282	130,707	290
14	3,970	18	4,115	18	8,085	18
15–64	131,614	591	138,296	608	269,910	600
65 and over	13,534	61	14,656	64	28,190	63
All ages..	222,510	1,000	227,604	1,000	450,114	1,000

Since the beginning of the century the crude birth rate has remained virtually unchanged. The crude death rate after rising between the first and second decades has fallen steadily. Current death rates are abnormally low due to the unusually small proportion of very old and very young persons in Cyprus at the present time. Infant mortality has shown a steady decline throughout the period since the mid-twenties; earlier records are incomplete. The following table illustrates these changes :

CRUDE BIRTH AND DEATH RATES

Year or Period	*Birth Rate*(1)	*Death Rate*(1)	*Rate of Natural Increase*(1)	*Infant Mortality Rate*(2)
Annual Average				
1901–05 ..	30·3	16·4	13·9	..
1906–10 ..				..
1911–15 ..	30·8	18·8	12·0	..
1916–20 ..				137
1921–25 ..	27·3	17·6	9·7	150
1926–30 ..				153
1931–35 ..	30·4	14·0	16·4	141
1936–40 ..				116
1941–45 ..	30·0	11·1	18·9	110
1946–47 ..				..
Actual				
1938	30·43	14·03	16·40	184·6
1939	30·97	11·46	19·51	120·83
1944	33·62	10·00	23·62	81·79
1945	30·41	9·42	20·99	81·02
1946	32·41	8·49	23·92	70·92
1947	33·21	8·49	24·72	65·51
1948	32·30	8·51	23·64	69·63
1949	27·81	8·92	18·89	71·71
1950	29·97	8·17	21·80	63·37
1951	29·29	8·43	20·86	60·47

(1) Per thousand of the mean population.
(2) Per thousand live births.

There is a seasonal movement of workers from the country to the towns and mining areas, mostly of agricultural wage-earners or of small land-owners whose holdings do not provide full time employment all the year round. Comparison of the results of the decennial censuses also confirms the existence of a marked tendency, in the inter-war and post-war period, for population to leave the countryside and the villages and to settle permanently in the six main towns. Generally speaking, however, and in spite of the more limited amenities, there is little antipathy to rural life among those who are able to earn a reasonable livelihood. While Nicosia, Famagusta, and Limassol continue to grow steadily and quite rapidly, the population of Larnaca—nearer to Nicosia than either Famagusta or Limassol—has remained fairly constant in recent years; it thus appears that Larnaca may be in the process of being " squeezed out " by these two neighbouring ports.

External migration is chiefly outward. There is no organised migration movement; individuals make their own arrangements, many of them travelling to join relatives or friends already established abroad. Emigration is mainly to the United Kingdom, but also to Australia, South Africa, and the U.S.A., where there are well-established communities of whom a large proportion are engaged in the hotel and catering trades. Though emigration is usually permanent, ties with home remain strong and there is a steady inward flow of remittances and gift parcels. There are some 7,000 aliens in the Island engaged in a wide variety of occupations.

An occupational analysis of the population is subject to special difficulties and ambiguities in Cyprus, where organised industry remains limited in extent, where there is much seasonal employment and many persons may have more than one occupation, working partly in agriculture and partly in industry, partly on their own account and partly for wages, where, also, hand craftsmen and factory workers cannot as yet be clearly separated. A discussion of these problems and the way in which they were decided during the 1946 census is to be found in Chapter VII of the Census Report. The relationship of the occupied population to the total civil population is shown in the following Table :—

GAINFULLY OCCUPIED AND TOTAL POPULATION CENSUS, 1946

Category	*Males*	*Females*	*Persons*
Earners, full-time	133,682	11,337	145,019
Earners, part-time or at home ..	—	20,403	20,403
All earners(1)	133,682	31,740	165,422
less			
Military enumerated in camps (2)	4,882	58	4,940
Civilian Earners	128,800	31,682	160,482
Houseworkers, other	—	106,750	106,750
Dependants(3)	16,417	15,363	31,780
Other Categories(4)	3,901	3,272	7,173
Civil population over 14 years..	149,118	157,067	306,185
Children aged under 14 years ..	73,392	70,537	143,929
Civil Population	222,510	227,604	450,114

(1) Including persons working on own account.
(2) i.e., not enumerated in the civil population.
(3) Students, aged, and infirm.
(4) Persons living on pensions, interest, rents, etc., and inmates of charitable institutions and prisons.

In the following table, that part of the population classified as "earners," including the military forces not enumerated among the civil population, is further analysed according to the principal occupational groupings :—

PRINCIPAL OCCUPATIONAL GROUPS

Occupational Group	*Males*	*Females*	*Persons*
Agriculture, Forestry and Fishing			
Farmers and Market Gardeners	24,190	1,027	25,217
Smallholders and Labourers	21,172	6,400	27,572
Flockowners	4,369	156	4,525
Shepherds	4,020	515	4,535
Forest Workers	948	123	1,071
Fishermen	501	—	501
Sponge Fishers, Hunters	21	—	21
Total	55,221	8,221	63,442
Industry, Commerce and Services			
Miners and Mineworkers	1,817	201	2,018
Quarrymen and Quarryworkers	615	47	662
Brick and Tile Makers, Potters, Glass Workers	363	177	540
Paint and Oil Makers, Chemical Workers	234	123	357
Smiths, Foundry- and Other Metal-Workers	1,933	61	1,994
Mechanics, various kinds	1,493	—	1,493
Gold- and Silver-smiths, Watchmakers, Jewellers	235	—	235
Tanners and Leather Workers	262	11	273
Textile Workers	693	6,601	7,294
Boot and Shoe Makers	5,088	67	5,155
Tailors, Dressmakers, Shirtmakers	2,271	4,255	6,526
Hatters and Milliners	17	23	40
Makers of Foods, Drinks and Tobacco	2,329	546	2,875
Wood- and Wicker-Workers	4,826	487	5,313
Printers, Photographers, etc.	380	47	427
Masons and Masons' Labourers	4,365	174	4,539
Other Construction Workers	1,221	137	1,358
Button Makers	253	326	579
Makers of Artificial Teeth	58	45	103
Miscellaneous Manufacturing Occupations	1,734	328	2,062
Transport Workers	6,320	17	6,337
Postal and Communications Workers	308	127	435
Workers in Water and Electricity Supply	619	10	629
Workers in Commerce, Banking, Insurance, etc.	9,371	618	9,989
Professional Workers	3,413	1,257	4,670
Priests, Clergy, and Church Officials	*676*	*24*	*707*
Lawyers and Law Clerks	*250*	*4*	*254*
Physicians, Surgeons	*252*	*16*	*268*
Dentists	*63*	*11*	*74*
Veterinary Surgeons, etc.	*13*	*1*	*14*
Midwives, Matrons, Nurses	*67*	*542*	*609*
Pharmacists, Dispensers	*163*	*11*	*174*
Health Inspectors	*316*	*4*	*320*
Teachers	*1,313*	*618*	*1,931*
Other Professional Workers	*300*	*26*	*326*
Providers of Entertainments and Personal Services	6,709	3,399	10,108
General Labourers	10,573	3,604	14,177
Miscellaneous Occupations in Industry, etc.	2,121	661	2,782
Government, including Police, etc.	3,607	78	3,685
Armed Forces	5,233	92	5,325
Enumerated in the Civil Population	*351*	*34*	*385*
Not enumerated in the Civil Population	*4,882*	*58*	*4,940*
Total	78,461	23,519	101,980
Total Earning Population, including Military	133,682	31,740	165,422
Employers and Workers on Own Account	..	..	69,662
Employees	..	..	86,750
Government and Armed Forces	8,840	170	9,010

Social Amenities

Education

Education is voluntary and there is reason to hope that the Education Department's aim of universal elementary education may be attainable under the present system and without resort to compulsion. During the school year 1949-50, in fact, 61,136 children, or 85 per cent of the population in the 6-12 age group were attending elementary schools, while 11,208 children, or 16 per cent of the age group 13-18 were attending secondary schools.

Elementary education is free and is directly administered by the central Government which decides the curriculum and bears the cost of teachers' pay, while the cost of buildings and equipment is met from special school taxes imposed by the local school authorities. Children attending secondary schools pay fees ; there are some free places. Ten schools, attended by some 40 per cent of the total in secondary schools, receive Government grants-in-aid (in these schools there is some indirect Government control, while non-aided secondary schools are independent). At the end of the school year 1949-50 there were in all 725 elementary schools with 1,550 teachers and 46 secondary schools having 476 teachers. Of the 46 secondary schools, 12 were private schools ; there were also two private elementary (preparatory) schools catering for English children, and Army schools at Nicosia and Famagusta, not included in the preceding totals. There are a number of private kindergarten schools.

Elementary schools emphasise training in agriculture and rural pursuits. The secondary schools are mainly of the academic grammar school type—Greek, Turkish, English or American ; five are commercial schools, however, and eight provide teaching in commercial subjects. Vocational instruction is provided at the Rural Central School established in 1940 (free, 40 places, two-year agricultural course), and the Apprentices' Training School established in 1946 (free, 100 places, five-year technical course), and also at the Reform School for young delinquents which accommodates some 60 boys. There is a small residential school for the blind. Post-secondary education within the Island is confined to the two

Teacher-Training Colleges, for men (129 students in 1949-50) and women (74 students in 1949-50).

The chief media of instruction are Greek and Turkish, according to the school ; English is the medium at three of the main secondary schools. On account of the need to provide separate schools for each of the main communities, the number of schools exceeds the number of villages on the Island. There are nearly 500 Greek and over 200 Turkish primary schools ; the remaining dozen or so comprise Armenian, Maronite, and Latin-Catholic schools. Free school meals are provided in most towns and some villages.

Expenditure on education in 1949-50 totalled £1,074,837, of which £627,017 or 58% was provided from the revenue of the Colony, £197,349 or 18% was derived from local taxation, £128,527 or 12% from fees, £89,274 or 8% from loans and £32,670 or 3% from donations ; the expenditure was distributed between elementary education (£783,375 or 72·9%), secondary education (£214,710 or 20%), teacher training (£28,425 or 2·6%), agricultural education (£9,135 or 0·9%), technical education (£7,009 or 0·7%), welfare services (£22,623 or 2·1%), and administration (£9,560 or 0·8%).

A substantial number of candidates present themselves locally for the external examinations of the University of London, for the examinations of the London Chamber of Commerce and for those parts of the Bar Examinations which can be taken " in absentia ". Many students attend overseas universities and institutes of higher education, mainly in Greece or the United Kingdom, or at Beirut. Scholarships are granted by Government out of Development Funds, mainly for study in the United Kingdom ; from the inauguration of the scheme in 1946 well over 100 such scholarships have been awarded, worth some £340 per annum, for periods of from one to six years.

Illiteracy is confined mainly to older people, especially women, and is diminishing.

Health

Cyprus is a healthy country, notably free from many of the more dangerous infectious diseases, although surrounded by countries where such diseases are endemic. The incidence in some recent years of the principal notifiable diseases was as follows :—

PRINCIPAL DISEASES (CASES NOTIFIED), 1936–50

Disease	1936	1937	1938	1944	1945	1946	1947	1948	1949	1950
Trachoma	8,963	3,505	2,262	906	880	1,039	592	547	562	149
Typhoid	667	666	621	505	522	409	343	479	554	596
Tuberculosis.. ..	280	257	193	223	375	224	236	211	303	266
Dysentery	51	84	60	191	99	99	141	41	30	90
Diphtheria	31	16	21	39	114	191	126	47	21	69
Malaria : Acute	12,779	18,273	10,956	524	416	319	48	5	—	—
Chronic				6,661	5,221	4,170	1,941	401	113	20

Malaria was formerly prevalent throughout the Island, but is now virtually non-existent as a result of the campaign launched in 1946 and lasting to January, 1950, to eradicate the anopheles mosquito ; measures taken since to prevent reinfestation from overseas have been successful, but constant vigilance is necessary. A campaign against trachoma has also met with considerable success. The reduction in 1948 and 1949 of the number of cases of diphtheria may result in part from the campaign for the immunisation of children of pre-school age.

The general state of nutrition is good, and reports from medical officers together with the results of two clinical surveys, confirm the absence of dietary deficiency diseases. Every poor person is entitled to free or very inexpensive treatment at a Government hospital or dispensary, while weekly-paid employees of government and their families receive free treatment at the expense of the Government social insurance fund.

Cyprus is well supplied with medical practitioners, particularly in the towns, and only certain isolated parts of the Island are out of reach of prompt medical aid. Some 300 private practitioners are registered.

Public health and sanitation are the responsibility of the Medical Department which carries out inoculation against dangerous infectious diseases and closely supervises sea and air traffic to prevent the entry of such diseases. The Department provides facilities for the training of sanitary officers, nurses and midwives, and maintains a general hospital at Nicosia and smaller hospitals in the main towns ; the six major Government hospitals have a total of 338 beds. There are 14 rural hospitals with 92 beds administered by local bodies, two hospitals run by mining companies, and 44 privately owned nursing homes. For the treatment of tuberculosis patients there are two sanatoria having 117 beds, a rehabilitation centre, and outpatient clinics in three of the main towns. The Government leper farm has about 100 patients and there is a mental hospital with 400 patients. Six well-equipped venereal disease clinics and prophylactic centres function in the main towns.

There are more than 80 private dentists, and Government dental officers are stationed in all the main centres, from which they make regular tours of the village.

Sanitary conditions and facilities in the villages are improving slowly in response to propaganda and advice of officers of the Medical Department, and in spite of the innate conservatism of the villagers.

Housing

Standards and types of housing in Cyprus vary widely. In the villages of the plain, houses are mostly single-storeyed and of mud-brick, having one main room and one or more additional rooms used for storage or as bedrooms. The floor may be of beaten earth, pebbles, or gypsum slabs, the roof flat and of reed matting covered by brushwood and beaten earth or clay ; windows are unglazed and fitted with shutters. The house commonly occupies one side of a courtyard of beaten earth, part of which may be roofed over for cattle and from which a door leads to the narrow village street. There is no heating, and cooking is usually done in a hive-shaped oven outside the house. Sanitary arrangements are primitive. In the hill villages the houses are clustered together wherever space can be found. Yards are smaller and two-storeyed houses the rule. The houses are mostly built of rough stone with gabled roofs of red tiles or corrugated iron ; wood is used to a greater extent than in the plains for floors, staircases and verandahs. In urban areas, the better houses are comfortable and adequately equipped with modern sanitary conveniences, but such houses remain comparatively few and are accessible only to the wealthier classes of the community. For the less well-to-do, urban housing remains poor, and the class of propertyless labourers of whom so many were attracted in wartime lives as best it can in khans (inns) and tenements, where acute congestion and lack of sanitation result in most unhealthy living conditions. Resumption of normal building, release of buildings from military occupation, and Government subsidised housing schemes have all contributed to relieve the situation but much remains to be done.

Statistics relating to housing were collected at the census of 1946 and previously at that of 1931. In the earlier year, however, no clear definition was given of what constituted a house, so that comparison between the two years may be misleading, at least in the case of the towns where shared buildings are common and ambiguity is therefore more probable. At the 1946 census a dwelling is defined broadly as " the residence of a person or a commensal family (taking meals in common) including its resident dependents . . ." By " rooms " are understood main rooms including bedrooms, sitting rooms, dining rooms, etc., but excluding kitchens, sculleries, bathrooms, larders, etc.

NUMBERS OF DWELLINGS AT CENSUS 1931 AND 1946

Census	*Number of Dwellings*			*Persons per Dwelling*
	*Six Towns**	*Villages†*	*Total*	
1931	15,117	69,122	84,239	4·13
1946	28,525	84,996	113,521	3·97
Increase	13,408	15,874	29,282	

* Including Nicosia suburbs.
† Excluding „ „

The number of living rooms in Cyprus as a whole in 1946 was 235,513 which represents a density of 1·92 persons per room. Dwellings containing three or more rooms numbered 30,067 or nearly 27 per cent of the whole. Thus nearly three-quarters of all dwellings in the Island consisted of only one room or two rooms. The average building, release of buildings from military occupation, and density of occupation was greater in the villages than in the main towns. Overcrowding (two or more adults or the equivalent per room) was greater in rural areas where, moreover, the houses were generally less well provided.

ROOMS PER DWELLING AND PERSONS PER ROOM—CENSUS 1946

	Towns	*Villages*
Medium size of household, persons ..	3·58	3·69
Average density, persons per room ..	1·52	2·08
Persons per room (percentage of all persons) :	%	%
One or less	23·1	12·4
One to three	56·7	52·2
Three or more	20·2	35·4
	100·0	100·0
Percentage of households living in :	%	%
1 room	38·5	37·4
2 rooms	21·5	35·8
3 rooms	13·5	16·1
4 rooms	11·2	6·4
5 rooms or more	15·3	4·3

In the six main towns in 1946 almost exactly one-half of all dwellings were described as having a piped water supply laid on ; the proportion was highest in Larnaca at 76 per cent and lowest in Kyrenia at 28 per cent. A further 32 per cent of dwellings obtained piped water from public stand-pipes outside and possibly some distance away. One-eighth of all dwellings obtained domestic water from wells or open channels and five per cent by purchase from water carriers. Eighteen per cent of all town dwellings were shown as having water flush sanitation, the proportion varying from 24 per cent in Nicosia to seven per cent at Paphos. Pit latrines were the general rule, but eight per cent of all town dwellings (chiefly at Famagusta) were returned as having no sanitary arrangements. Nearly 9,000 households shared sanitary facilities with another dwelling. In the rural areas, except in some parts near to Nicosia and in certain of the summer tourist resorts, a laid-on piped water supply and water flush sanitation are practically unknown. Some 45 per cent of the rural population in 1946 was served by a piped water supply, and of all villages 346 had a piped supply and 281 did not. Roughly one-third of all village households drew water from exterior stand-pipes not more than 80 yards from the dwelling and 38 per cent of all villages had piped water distributed to public stand-pipes conveniently accessible to all. Fewer than one-half of all houses in villages, in 1946, had any form of sanitary facilities.

Of all houses existing in 1946, 29 per cent in towns and 24 per cent in villages were completed after 1931, while some two-fifths had been completed before 1911. Some 28 per cent of houses were detached while 51 per cent in towns and 38 per cent in villages were attached on two or more sides. In 49 per cent of town houses and 63 per cent of village dwellings mudbricks were the chief material used for walls, with or without a stone façade ; for the remainder small or large stone was the chief material in villages and stone, brick, or concrete in towns. For flooring timber was the main material in 23 per cent of town dwellings and five per cent of village dwellings ; flagstones (" marmaras ") were used in 60 per cent of town houses and 41 per cent of village houses. In four per cent of town houses and 45 per cent of village houses, the floors were of beaten earth. For the remainder, floors were of tiles or cement. Glass windows were fitted in 95 per cent of houses in towns but only 19 per cent in villages ; seven per cent of village houses had no window openings of any kind.

In the Island as a whole, owner-occupation is the general rule ; this is especially the case in the smaller towns and rural areas. In the larger towns, especially Nicosia, where a large influx of labourers with their families occurred during the war, the proportion living in rented premises has probably increased substantially by comparison with the pre-war period. In 1946, 36 per cent of town dwellings and 82 per cent of village dwellings were owner-occupied. Fifty-two per cent of town-householders rented their dwellings, the proportion varying from 61 per cent in Nicosia to 38 per cent in Paphos. Only seven per cent of village householders rented their dwellings, more than half of these being persons living in the immediate vicinity of Nicosia or in the mining camps of the Lefka area.

Urban rents are high, often five to six times as high as before the war, and overcrowding persists. Imported building materials are in short supply and construction costs are high although they have fallen somewhat since 1948 when they were at a level some four to five times prewar. The progress of private building is further hindered by the total lack of building societies and the high cost of bank loans for building. Nevertheless, new houses have continued to be built, and especially in the villages are of a much higher standard than formerly, partly as a result of the imposition of new minimum standards by the authorities who exercise control over all new building. There is also, however, increased popular awareness of the desirability of raising standards of housing and of securing improved amenities in the shape of adequate water supply and sanitary facilities.

With the help of Government subsidies and loans, more than 300 houses have been erected in the four main towns, mainly by the municipalities concerned, for lease at cheap rents to families in the lower income groups. The housing scheme at Nicosia is in the form of a model estate with community centre, school, shops, open spaces and sites for public buildings, and has set a new standard for the housing of urban workers in the Island. Completions by municipalities of urban workers' houses totalled 228 in 1949 and 24 in 1950. The construction of military, R.A.F., and government quarters has helped to relieve shortages, more particularly of middle-class houses, by releasing accommodation elsewhere. Private builders constructed 508 new houses (having some 2,000 rooms) in 1949, and 592 houses with a total of 2,330 rooms in 1950 ; approximately 740 rooms were added by private builders to existing houses in 1949, and 829 rooms in 1950. Nevertheless the housing shortage remains acute, and in 1950, for example, a " shanty town " near Famagusta accommodated some 2,200 persons in very unhygienic conditions, many hundreds of people were living in huts built of old petrol tins, and in one town there were people living under bridges in erections of sacking and similarly unsuitable materials.

There are plentiful local supplies of lime, gypsum, and good building stone of many kinds ; bricks and tiles of excellent quality are manufactured. Cement, steel, glass, paint and sanitary fittings have to be imported.

Social Security

A contributory social insurance scheme is operated by Government for its weekly paid employees, which provides free medical, dental and hospital treatment, sick pay, and maternity benefits. Some of the larger industrial establishments have similar schemes.

In Cyprus, family ties are strong and arrangements are made within the family for the maintenance of aged, ailing, and indigent relatives. No Government schemes for the relief of old-age or poverty are in operation, but some of the larger municipalities maintain poor-houses and a social provident fund under the ægis of the Church assists destitute people. District commissioners have a small fund for charitable purposes.

There are no friendly or building societies but thrift is encouraged by co-operative credit societies and savings banks, which are established in all towns and most villages. A system of school savings is organised jointly by the Departments of Co-operation and Education ; at the end of 1950 there were 344 school saving banks with 30,000 pass books and collections averaging £1,200 weekly. Deposits of all types with all co-operative societies were £1,302,700 at the end of 1950, having increased by £11,000 during the year. There is no Post Office Savings Bank.

Political Structure

Constitutional and Political Background

After the occupation of the Island by Great Britain in 1878 a change was made in the system of government, by the establishment in 1882 of a constitution based on the electoral principle. Although the mass of the people were illiterate and there was no tradition of self-government, the new constitution created, besides an Executive Council to advise the High Commissioner, a Legislative Council under the presidency of the High Commissioner with six official non-elected members and 12 elected members, three of whom were elected by the Moslem inhabitants and nine by the non-Moslem. In 1925, when the Island became a Crown Colony, the Legislative Council was enlarged by the addition of three officially nominated members and three elected members.

After the disturbances of 1931 arising out of the movement for union with Greece, the Government was reconstituted without a Legislative Council, and the legislative authority, subject to the power of His Majesty to disallow local legislation or to legislate for the Colony by Order in Council, was entrusted to the Governor. The Executive Council was retained. The function of the Council, which consists of four official members and not more than three non-official members (one of whom is a Moslem), appointed by the Governor, is principally to advise the Governor on new legislation, and on the exercise of the powers granted to the Governor in Council under existing laws.

Local Government

The affairs of most of the villages are managed by Village Commissions appointed by the Governor. Such Commissions consist of a Mukhtar (head man), who acts as president, and four Azazs (elders).

Thirty-six of the biggest villages have now been scheduled as " improvement areas." They will be administered by boards composed partly of officials and partly of representatives elected at village meetings.

Municipal Corporations have been established for the big towns and for ten of the most important villages. Each has a Municipal Council composed of a mayor with from six to 12 councillors elected by a general vote of the male population. In addition to the Municipal Councils, the towns have in each quarter a Village Commission.

In five of the six district towns there is a resident District Commissioner who is the local representative of Government, responsible for supervising the work of municipalities and villages and for assisting and advising Village Commissions and Municipal Councils.

Besides the Village Commissions, Boards and Councils mentioned above, each district has a District Council with the Commissioner as chairman.

Principal Economic Legislation

General

The Companies (Limited Liability) Law of 1922 and the Companies (Limited by Guarantee) Law of 1949 have now been superseded by the Companies Law, 1951, which regulates the formation and conduct of companies both public and private, whether limited by share or by guarantee, including associations not for profit. Companies incorporated abroad which establish a place of business in Cyprus are required to register under this Law. The Law is based on English companies legislation and takes account of the U.K. Companies Act of 1948. The conduct of partnerships is governed by the Partnership Law 1928 as amended. Both companies and partnerships formed under the above-mentioned acts are precluded from carrying on the business of insurance. The registration of business names is required by law. The formation, registration, and conduct of co-operative societies is governed by the legislation of 1939 and 1946. Other legislation relating to trade includes a law to regulate and control outdoor advertising through the medium of hoardings and placards, etc. The Bills of Exchange Law of 1928 resembles United Kingdom legislation on the same subject. Marble Manufacture is regulated by the Law of 1935, with the object of preventing damage to or destruction of ancient monuments. The Usary (Farmers) Law of 1919 fixed the maximum rate of interest which might be charged at 12 per cent per annum and empowered the courts to decide on the reasonableness or otherwise of miscellaneous charges and conditions attached to loans, and to enforce compliance with their judgment. By the Usary (Farmers) (Amendment) Law of 1944 and the Interest Law of the same year, the maximum rate of interest was fixed at nine per cent, and was extended to cover all forms of debts and obligations entered into after 16th November, 1944.

Income Tax was introduced in Cyprus in 1941, and is governed by the Law of that year, as amended from time to time ; there is a double-taxation relief agreement with the United Kingdom made in 1947 and taking effect from the fiscal year 1946-47. Estate Duty was introduced in 1942. A variety of other taxes, duties, fees, and charges are imposed, the principal laws being the Goats (Free Ranging) Tax Law of 1948, the Immovable Property Tax Laws of 1932-42, the Stamp Duties Laws of 1923-48 and the Documents (Special Duty) Laws of 1944-48. Under the Local Government legislation, Municipal Authorities are empowered to levy, in addition to local rates and taxes, fees according to a prescribed scale, for the issue of licences to pursue trades and professions. With the principal object of preventing the avoidance of excise duty thereon, the Tobacco Law of 1932 makes detailed regulations governing the planting, cultivation and subsequent harvesting, movement, preparation and sale of tobacco. The Salt Law of 1933 has analogous provisions. Rates and yield of the taxes, fees, etc., governed by this legislation are given in the section below on public finance. The former tax on sheep, goats and pigs was abolished by the law of 1934.

Trade Tariffs

General control and management of customs is exercised under the consolidating Customs Law of 1936, subject to some later amendments. The schedules currently in force, of rates of duty, exemptions, and wharfage dues, are those of the Customs (Amendment No. 2) Law, 1948, with certain minor amendments. Some specific duties are imposed, but the rates are mostly expressed in percentage form on an *ad valorem* basis, valuation being c.i.f. Cyprus ports of entry. In some cases specific minima are also provided for, coming into operation automatically if prices fall below a given level. Preferential rates are levied on most goods of Imperial origin, varying in general between one-half and three-quarters of the general tariff. Staple articles of food are generally exempted from payment of customs duty and low rates are charged on raw materials for use in local manufacturing industries.

Some of the principal rates are as follows, preferential rates being given in brackets after the general tariff; the details given are not exhaustive and reference should be made where necessary to the full schedule referred to above :—

IMPORT DUTIES

Ad valorem Duties per cent		n.e.s. = not elsewhere specified.
100	(60)	Perfumery, cosmetics, and most kinds of toilet preparations.
60	(50)	Silver and silver manufactures, n.e.s., furs and dressed skins and manufactures thereof ; silk and artificial silk-piece and other goods n.e.s.
48	(40)	Clocks, watches, and parts thereof.
40	(30)	Cameras, undeveloped films, photographic papers.
40	(20)	Footwear, n.e.s., wholly or partly of rubber, balata, or gutta percha.
35	(15)	Motor cycles and parts ; tyres and tubes for motor cars and motor cycles.
30	(20)	Other boots and shoes, n.e.s., timber (except certain kinds of softwood).
30	(15)	Woollen piece and other goods, n.e.s., cinematograph films (developed) ; motor cars and parts (except tyres and tubes).
28	(20)	Electrical goods and appliances.
25	(16)	Apparel of all kinds other than headgear, not being of silk or artificial silk.
24	(16)	Glass and glassware (except common window glass of natural colour) ; linen, hemp, and jute manufactures including piece goods ; linoleum and oilcloth ; bitumen paint ; cutlery ; hardware ; most metals and metal goods n.e.s., all goods not otherwise charged with duty nor exempted from duty and not prohibited to be imported.
20	(12)	Cotton piece-goods ; other cotton goods (except finished thread or yarn numbers 4 to 14) n.e.s., earthenware and china ; glazed and flooring tiles ; leathergoods ; stationery.
15	(12)	Articles of food and drink not exempted from duty nor prohibited from being imported and not specified elsewhere.
10	(2)	Raw cotton.
4½	(3)	Softwood logs, planks, etc.

Specific Duties

Tobacco, unmanufactured, per oke 5s. (4s.).
Cigarettes and cigars, per oke *£4 8s. 8d. (£4 3s. 8d.).
Tobacco, other manufactured, from, per oke, (£1 5s.). to, per oke, £3 18s. 8d.
Wines, from, per gal. (12s.). to, per gal., 30s.
Spirits, from, per gal. (£2 8s.). to, per gal., £3 7s.
Matches, per gross of boxes†, 11s. 4½d. (7s. 6d.).
Cotton Thread, finished, per 1,000 yards, 2¼d. (¾d.).
Benzine, petrol, motor spirit, per 4 gals., 7s. (5s. 4½d.).
Common soap, per oke, 4d. (1⅜d.).
Cement, per cwt., 5d. (2½d.).
Salt, per oke, 5d. (4d.).
Sugar and sugar candy, per oke, 6d. (5d.).
Tea, per oke, 1s. (6d.).
Coffee, per oke, 7d.—1s. (6d.—7½d.).
Cheese, per oke, 4½d.—1s. (3d.—6d.).
Bacon and Ham, per oke, 5½d. (4d.).

Exemptions from payment of import duty, in addition to bona fide personal baggage, include : agricultural, horticultural, and beekeeping tools and implements ; aircraft, ships, boats, and parts thereof ; certain types of ships stores ; casks, drums, hoops and many other materials used in wrapping and packing for export ; button making materials ; chemical manures, fertilisers, insecticides, etc. ; much mining and industrial equipment and clothing ; kerosene ; butter and substitutes ; rice, wheat, and certain other food grains.

Prohibitions from import relate mainly to the preservation of order and protection of public health and domestic agriculture or industry. In some cases import may be permitted under licence or permit from the public department concerned. Prohibited imports include most types of arms, ammunition and explosives ; used clothing or rags ; hides or skins ; wool, unmanufactured ; dangerous drugs ; fodder ; flour ; molasses ; skimmed milk ; wheat ; cotton plants ; seed or raw cotton ; silkworms or silkworms' eggs.

Under the Customs (Export Duties) Law 1940-46 duties were formerly levied on exports of almonds, barley, carobs, cumin, cattle, donkeys, mules, potatoes, raisins, spirits, wines, and wool. Those duties still remaining were removed by the Customs (Export Duties) (Repeal) Law of 1948, and no export duties are now levied on agricultural products. There are still duties on mining and quarry products, however, ranging from 3p. to 3s. 4½p. per ton, or from 1½ to 5 per cent *ad valorem.*

Labour

There is a wide range of labour legislation. The principal enactments are the Trades and Industries (Regulation) Laws of 1937 and 1942 which among other things govern sanitation, ventilation, and overcrowding in factories, safety of machinery, and prevention of accidents, and which make provision for inspection. The fixing of permitted hours and times of work is provided for under the terms of the Factory, Hours of Employment Law of 1927, the Shop Assistants Law of 1942 and 1945, the Summer Afternoon Recess Law of 1938, the Bank Holidays Law of 1928 and 1948, the Bakeries (Night Work) Law of 1950, and others. The employment of women underground in mines or in night work is prohibited, in general, by the Women, Employment in Mines Prohibition, Law of 1936 and the Women, Night Employment Regulation, Law of 1932-38. Female Domestic Servants are protected by a law of 1939. The employment of young persons is subjected to control, and their employment in unhealthy trades or conditions, for long hours, or at night is, in general, prohibited by the Young Persons and Children, Employment, Laws of 1932-44.

The Minimum Wage Law of 1941 empowers the Governor to fix minimum wages by order in council. There is provision for Workmen's Compensation in the Laws of 1942-44.

The Trades Disputes (Conciliation, Arbitration, Enquiry) Law of 1941 empowers the Governor to take steps directed to the settlement of trade disputes. There was passed in 1949 the Trades Unions Law which regulates the formation, registration and conduct of bona fide trade unions. The law is modelled on United Kingdom law relating to trade unions, from which it differs at present principally in that registration is obligatory and that members must " contract in " if they wish to subscribe to a political levy.

Other major legislation governing labour matters includes :—

The Mines Regulations (Amendment) Laws 1882-1938 and the Mines Regulations 1926 and 1931 ; the Docks (Regulation) Law 1939 and the Docks (Amendment) Regulations 1939 and 1940 ; the Hotels (Conditions of Service) Regulations, 1946 ; the Regulated Trades and Industries (Structural Requirements, Safety, Sanitation, Ventilation, and Cleanliness) Regulations, 1947 ; the Steam Boilers, Engines, and Receivers Law 1947.

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* or, for cigarettes, per thousand whichever is higher.

† of 10,000 or fewer, or alternatively per 10,000, whichever is the higher.

Land Tenure

Before 1945 land tenure was governed chiefly by the Ottoman Law in force in 1878, as altered and amended by subsequent local legislation. Six principal categories of landed property were recognised: Arazi Mirié (State Land), Arazi Memlouké, Mulk, Arazi Mevcoufé (dedicated land), Arazi Metrouké (land left for public use), and Arazi Mevat (unoccupied land not in public use). These were further divided into several sub-categories. The different categories and sub-categories of land were subject to a wide variety of restrictions on ownership and on transfer, including testamentary disposition; some were subject to the law of pre-emption. In Mulk, a form of dual ownership was recognised whereby buildings, trees, etc., being the property of one man might stand on land owned by another.

Previous legislation, including the Ottoman Laws, relating to ownership and disposal of land, buildings, and other immovable property was repealed by the consolidating and amending Immovable Property (Tenure, Registration, and Valuation) Law, 1945, and the six categories referred to above were abolished, together with their sub-categories. The general principle of the new Law is to create in place of the previous manifold types of property, a single form of freehold tenure embodying a clearly defined and unfettered right of ownership and disposal, not subject to the multiple restrictions existing under the old Law. This private ownership of land extends in general, " to the surface and to the substance of the earth beneath the surface and to the space above the surface, reasonably necessary for the enjoyment thereof," but does not, in general, extend to minerals. The right of subdivision or partition is limited under Section 26 of the Law of 1945, so as to prevent undue fragmentation of holdings. Provision is made in the 1945 Law to secure the progressive abolition of the mulk system of dual ownership. Provision is also made whereby that form of communal town or village property previously known as Arazi Metrouke may continue to be so held in common, and whereby Vakf property held and enjoyed in accordance with the Cyprus Evcaf (Mohammedan Religious Property Administration) Order and Law, 1928 and 1934 shall so continue. The 1945 Law provides, further, that certain classes of property may, under specified conditions, be made Vakf by valid deed of dedication. Under the new Law, the previously existing system of land registration is made more comprehensive and all titles, transfers, mortgages, charges, easements, etc., are required to be registered in order to be valid. Certain classes of immovable property are reserved to the Crown if not already in private ownership; these include lakes, rivers, streams, natural water courses, public roads, foreshore, that land formerly known as Arazi Mevat, and all vacant or unoccupied immovable property. The Governor is given the right, in general, to grant, lease, exchange, or otherwise alienate any Crown Property and to assign grazing grounds for the communal use of any town or village.

Aliens must obtain the consent of the Governor before being permitted to acquire immovable property.

Most Crown land consists of State forests, mainly in the mountains, covering more than 600 square miles. Other Crown land consists of scattered plots which owners of adjacent lands have not found it profitable to cultivate. There is some Crown land in the principal towns, mostly earmarked for Government projects. The bulk of privately owned land is held in freehold; plots are small, and joint ownership is common. Mulk tenure, though gradually disappearing, still remains significant in extent.

Immigration

General control of the inward and outward movement of persons is exercised under the Communication with Vessels Law, 1932, the Departure from the Colony of Natives of the Colony (Regulation) Laws 1938 and 1940, and the Aliens and Immigration Laws 1949 and 1950. The last-mentioned Laws empower the Governor to nominate ports of entry and prohibit entry except at those places and (in general) except by natives of the Colony or by persons in possession of a valid passport.

Communications and Transport

Internal

A network of roads provides all-weather communication between all towns and the more important villages. Over 700 miles of main roads are asphalted and more than 1,800 miles of subsidiary gravel roads are, with few exceptions, passable all the year round. The main towns are connected by regular bus and taxi services and almost all villages have bus services taking passengers and goods to the main towns. At the end of 1950 motor vehicles numbered 8,512 and motorcycles 2,744. There were also some 50,000 bicycles.

A government railway ran from Famagusta through Nicosia and Morphou to Kalokhorio, a distance of 71 miles. The section from Famagusta to Nicosia was open to regular passenger traffic, the extension from Nicosia to Kalokhorio being served by special goods trains as traffic offers. During 1950 the line carried 117,000 passengers and about 77,000 tons of goods, most of the freight being imports landed at Famagusta harbour and destined for Nicosia.

The railway had been running at a loss and large capital outlay on rolling stock and permanent way would have been necessary to keep it in safe working order. The line was therefore closed after the end of 1951 and replaced by road transport.

Private railways link the mines at Mavrovouni and Skouriotissa with Xeros on Morphou Bay, and the Kalavasos mine with Vasilikos on the south coast. The Amiandos asbestos mine is connected by aerial ropeway with the coast near Limassol, and another shorter ropeway runs from the Troodos chrome mine to a point lower down the mountain side.

There are no internal air services or navigable waterways.

External

A subsidised steamer of the Khedivial Mail Line provides a regular 10-day mail service between Cyprus, Egypt, Palestine and the Lebanon. Steamers of the British conference lines call at approximately fortnightly intervals and cargo vessels of other nations at frequent intervals. A total of 1,263 steamers and 379 sailing vessels engaged in foreign trade entered Cyprus ports in 1950 embarking a million tons of cargo and nearly 16,000 passengers, and disembarking over 300,000 tons of cargo and 13,000 passengers.

In 1950 seven civil airlines maintained frequent regular services between Cyprus and all Western European and Middle East countries, providing connections to all parts of the world. During the year more than 2,400 aircraft landed 13,626 passengers and some 640,000 kilos of goods, mail and baggage and embarked 12,419 passengers and nearly 600,000 kilos of goods, etc. In addition, there were nearly 32,000 transit passengers.

Famagusta, Larnaca and Limassol are the Island's principal ports and there are secondary ports at Paphos, Kyrenia, Karavostassi, and Vasiliko-Zyyi. With the exception of Famagusta, all are open roadsteads and goods are shipped by lighter. At Kyrenia and Paphos the harbours are of sufficient depth to permit small coastal craft to enter. All ports are provided with piers; all the main ports and some of the secondary ports have power or hand-operated cranes. The approach channel to Famagusta has a minimum width of 250 feet, and the harbour entrance is 250 feet wide, with a dredged depth of 24 feet. Vessels up to an overall length of 425 feet can normally enter the harbour which has 1,750 feet of quay and an iron jetty 325 feet long. At Vasilikos, the Hellenic Mining Company, Limited, has constructed a ropeway 85 feet high extending 1,640 feet seawards, for the loading of minerals; the depth of water at the loading pylon is 32 feet.

Posts, Telegraphs, and Telephones

There are fifteen main post offices—including the three summer offices of Troodos, Platres and Pedhoulas—and 682 postal agencies. The principal towns are linked by daily motor mail services and there are branch services by motor, bicycle or animal to the villages. Over eleven million items were handled in 1950, and 860,000 miles covered in the carriage of mails. There are surface and air-mail services to most parts of the world.

Telegraph and telephone services are maintained by Cable and Wireless Ltd. Land telegraphs link the six principal towns and fifteen large villages ; most summer resorts are connected to the system during the season. Ocean cables connect Larnaca with Alexandria and with Haifa. The telephone system serves the six towns and 118 villages ; automatic exchanges are shortly to be installed in three towns.

II.—PRODUCTIVE ACTIVITIES

Agricultural Conditions and Methods

At the time of the Agricultural Census, 1946, the value of farm output was estimated at £11,356,000, made up as follows :—

VALUE OF FARM OUTPUT, 1946

Crops	£'000	£'000
Wheat	1,471	
Barley and Oats	895	
Cereal Straw	382	
Grapes	932	
Olives	744	
Green Fodder Crops	641	
Potatoes	619	
Carobs	511	
Citrus Fruits	371	
Vetches, Vicos and Favetta	342	
Tobacco	164	
Tomatoes	156	
Cucumbers, Marrows, etc.	140	
Broad Beans (dry)	112	
Melons	108	
Onions and Onion Sets	93	
Aniseed	83	
Figs	68	
Almonds	62	
Sesame	52	
Colocassi (yam)	52	
Haricots (dry)	50	
Cotton	38	
Apricots	32	
Other Crops	318	8,338
Livestock		
Cattle (exports and slaughter)	200	
Sheep (slaughter and increase)	680	
Goats (slaughter and increase)	300	
Pigs (slaughter and increase)	280	
Poultry and Rabbits (slaughter and increase)	190	
Camels, Mules and Donkeys (exports)	131	1,781
Livestock Products		
Milk	885	
Eggs	280	
Wool	54	
Honey	18	1,237
£'000		11,356

This represents an average gross output of £188 per holding or £2 3s. per donum* (£6 10s. per acre) of all non-forest land lying outside built-up areas (5,230,000 donums). Output for the four " natural areas " can be distinguished separately as follows (approximately only) :

	Gross Output	Output per Holding
	£000	£
North Coast	1,855	221
Central Plain	5,460	253
Hills	1,865	111
South Coast	2,175	159

There were returned in 1946 as directly engaged in agriculture 61,849 persons (53,751 males, 8,098 females) or almost two-fifths of the total earning population. If " general labourers " resident in villages are added, the number is raised to 72,913 persons or 44 per cent of the whole. The earning population of 165,422 included 99,468 householders, of whom 59,084, or roughly three-fifths, were owners of agricultural land. Of these land-owners some 40,000 were estimated to be themselves occupied in agriculture ; the remainder had their main occupations elsewhere. Persons actually operating farm holdings in 1946 numbered 60,464 (55,291 males, 5,173 females) (not including holdings of less than one donum of irrigated or three donums of non-irrigated land) ; a further 76 holdings were operated by corporations or committees. (These figures are not co-extensive with those above of persons whose main occupation is agriculture, but include, for example, some 19,000 persons for whom agriculture is a secondary occupation.)

It has been estimated that a holding of 70 donums is the minimum, in general, which will maintain a farmer and family of five persons at a reasonable standard of comfort. The number of holdings declared as exceeding 70 donums is 14,500 or 24 per cent, but there are wide local variations, especially between hill and plain and between irrigated and dry lands. In general, holdings are smaller in areas devoted to " dry " cereals ; there are, however, some marked departures from this general rule. The average size of holding, according to the declared figures of 1946, was approximately 53 donums, but the actual figure may have been as high as 75 donums, i.e., rather more than the " minimum satisfactory " size.

FARM HOLDINGS ACCORDING TO SIZE

	Donums	*Acres (approx.)*	*Percentage of all Holdings*	*Percentage of Total Farm Area*
Small ..	3– 19	1– 6	33·5	6·2
Med.-small ..	20– 59	7–19	37·2	25·2
Medium ..	60– 99	20–32	15·3	21·8
Med.-large ..	100–199	33–62	11·2	27·9
Large.. ..	200	63	2·8	18·9
			100·0	100·0

As these overall figures do not distinguish separate plots held by the same owner, they do not reveal the extensive fragmentation of holdings which exists in Cyprus. The census disclosed that registered plots numbered some 12-13 per holding, the average size of plot being only 4·25 donums, i.e., rather less than 1½ acres. Though registered plots of the same owner may be adjacent they are more commonly separated. It has been estimated that approximately nine distinct " parcels " of land make up the average holding, and that a " minimum satisfactory " farm of 70 donums is on average divided into 13 " parcels " involving a journey of some 23 miles to visit all plots in turn. Some villagers living in the hills have cereal lands many miles away in the plains, and more than one-fifth of all agricultural land is situated outside the boundaries of the cultivator's own village.

The total area of privately owned agricultural land, as indicated by survey is approximately 4½ million donums, although only 3¼ million donums was actually declared at the 1946 Census. Of the 3¼ million donums 84 per cent was farmer-owned, 10 per cent held under lease and six per cent under metayage or sharecropping agreements. Of the land held under lease roughly half was under short leases of up to two years.

In recent years increasing preference has been shown for leases at fixed rentals, payable in cash or kind ; for example, church lands are now commonly held under leases running for three to five years. Leasehold tenure and sharecropping are more common in the North Coast and Mesaoria regions, and less common in the hills.

Irrigation

Limited rainfall coming mainly in winter, high summer temperatures and considerable loss by evaporation make it necessary to have recourse to irrigation which in its simpler forms has been practised in the Island for centuries.

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* 3.025 donums = 1 acre.

The Census of 1946 showed 12 per cent of the farm area or approximately 397,500 donums as under irrigation (this may be a slight under-estimate owing to the existence of undeclared farm land). Of the irrigated land approximately 70 per cent enjoyed only springtime flow irrigation, the remainder being under perennial irrigation (about half by flow and half by mechanical means, i.e., water wheels, engine pumps and windmills). Irrigation works include artesian wells, storage reservoirs and chains of wells, the latter mostly old and owned communally by groups of peasants. Spring flood irrigation is often combined with a small perennial flow to serve areas of legumes, potatoes, fruit trees, cereals, and under favourable conditions, cotton and sesame.

The problem of irrigation is complicated by the existence of involved private water rights. Even where there is communal control, the fragmentary nature of holdings leads to complications. An attempt has been made to ease this problem by the Irrigation Division Laws which permit the users of a common source of water to form associations responsible for the maintenance of water works and the assessment of water rates.

Soil Conservation

The climate of Cyprus renders the soil particularly liable to erosion and certain preventive measures, such as terracing, have been practised for centuries. Nevertheless erosion in many areas presents a serious problem and provision was made in the 10 Year Plan for the institution of a Soil Conservation Service and a Colonial Development and Welfare grant for £16,000 allocated to the purchase of machinery.

By the end of 1948 schemes covering over 1,000 acres had been carried out on private lands. The main types of work undertaken were : the construction of gradoni terraces on steep slopes (costing about £3 10s. per donum) ; contour banking on gentler slopes (5-7s. per donum) ; the levelling of fields and construction of earth-draining banks (with spillways to allow flood irrigation). The Soil Conservation Service continued active during 1949 and 1950. In the former year the main single project was the construction at Kanli Keuy, in co-operation with the Water Supply and Irrigation Department, of an earth dam 20 feet high to form a reservoir with a capacity of some four million gallons and having a catchment area of nine square miles ; the total cost, excluding technical supervision by the departments concerned, was £1,320. During 1950, among other projects, an area of marginal land near Famagusta, known as the Plousha minor forest, was completely replanned and its 2,000 donums of existing arable land were contour banked ; a further 2,000 donums of arable land is to be brought under cultivation and some 12,000 olive or carob trees in all will be planted along the contour banks. The present arable land has been leased to 38 smallholders, each having four plots—one in each field of the four course rotation provided for—of 12½ donums or 50 donums in all at an average rent per holding of £13 12 0 per annum. The fruit trees are to be similarly leased. The whole will eventually form a large group farm.

Farm Machinery

Agricultural machinery and equipment on farms at the time of the 1946 census was :—

Farm carts	8,030	
Tractors (all types)	120	
Ploughs, iron, animal drawn	8,876	
Ploughs, iron, tractor drawn	136	
Reaping machines, animal drawn	1,020	
Combine harvesters	10	
Binders	7	
Threshing floors in use	23,604	
Threshing machines, locally made	141	
Threshing machines, imported	15	
Olive presses, wooden screw	509	(1)
Olive presses, iron or hydraulic screw	471	
Stationary engines	1,394	
Water wheels	4,830	
Windmills	1,107	

(1) Season, 1945-46

Implements commonly used in Cypriot agriculture include the locally made wooden plough which is chiefly oxen-drawn, and (for threshing) a type of sledge having sharp flints fixed in the bottom and drawn by oxen, mules or donkeys. The land and the fragmented system of holdings do not in general lend themselves to modern mechanised agriculture, and trials by the Agricultural Department have indicated that no significant increase in yield of cereals is to be anticipated from the substitution of such methods. Nevertheless, imported steel ploughs, harrows, etc., continue to be in strong demand, and high labour costs during and since the war years are stimulating the progressive introduction of tractors and power-driven machinery including binders and threshing machines. The number of tractors in use at the end of 1950 was 452 as compared with 120 in 1946 and 27 in 1938 ; tractors imported in 1950 numbered 75, including 28 heavy-duty, mainly diesel engined, models. Power sprayers are being used increasingly in the citrus groves. Reapers and binders are now quite common, and combine harvesters are coming more into use. Importation of threshing machines has made relatively little headway ; locally manufactured threshers, fitted with a simple peg beater inside a perforated concave, are widely preferred because of the fine and softer bruised straw produced. These threshers, which have begun to take the place of the more primitive threshing board, greatly expedite the threshing of the grain crop.

An enquiry made in 1950 indicates that nearly three per cent (by area) of all holdings are cultivated entirely by hand, and some 85 per cent with the assistance of animal traction. Six per cent are worked by animals and tractors jointly, and six per cent mainly by tractors. Few farmers have sufficient land to justify the outright purchase of such machinery, and a number of agricultural machinery co-operatives have been formed. Some co-operative credit societies have acquired machinery as also have a number of companies and individuals working on contract for profit.

Administration and Research

Government's Land Use Policy aims to maintain and increase the productive capacity of the land so as to diminish dependence on imported foodstuffs, agricultural raw materials, and forest products, and to promote the development of suitable export crops.

The Department of Agriculture seeks to stimulate diversification of farming and to improve the quality of products by the provision of improved seeds, tree stocks and breeding stocks. The Department maintains a produce inspection service and undertakes the grading and inspection of export products and of imported fertilisers and seeds. A central experimental farm carries out crop trials, etc. ; the Government stock farm breeds and maintains selected animals for stud purposes, and there are seven departmental stud stables. There are a viticultural, a tobacco station, and two deciduous fruit stations ; a sericultural station is located at Galata. In addition to these and to the olive nurseries (four already established out of six planned under a Colonial Development and Welfare scheme) there are general nurseries providing a wide variety of seeds, including forest tree seedlings.

Considerable progress has been made in pest-control. The Moroccan locust (*Dociostaurus maroccanus*) which is indigenous to Cyprus is kept in check by an annual poisoning campaign, the bait used being a mixture with bran of a benzene hexachloride preparation. Research is being undertaken with the aim of devising a cheaper and more effective method of destruction. The leaf mining larva of the tineid moth (*Syrubgopais temperatella*, locally named " sirividhi ") lives in the leaves of cereals and causes them to shrivel. In a series of experiments carried out in the winters 1946–47 and 1947–48, a high degree of control was obtained with D.D.T. and B.H.C. preparations. During the same seasons weed-killer trials were carried out using D.N.O.C. and a hormone preparation. Both proved effective killers of weeds prevalent in Cyprus, especially of charlock, and the former material was also found to give excellent control of sirividhi. Both the sirividhi and the weed control preparations were found to give an increase in yields of up to 50 per cent, while in fields heavily infested with both sirividhi and weeds " Denoc " may give up to 100 per cent increase in yield. Increases of up to 25 per cent in citrus fruit yields have been obtained experimentally by spraying with hormone preparation (2, 4-9).

Agricultural Credit

Facilities for short and medium term credit exist through the co-operative movement (see pages 48-50). The Co-operative Central Bank accepts deposits from societies with surplus money and lends to societies with insufficient funds. In 1949 the Bank issued £572,000 in short term loans and £15,000 in medium term loans. The Bank lends at five per cent and the Societies at rates varying between three per cent and seven per cent. Long term agricultural credit is provided by the Agricultural Bank of Cyprus in which the Government has a part-interest. Long term loans issued by the Bank in 1949 amounted to £55,000 ; £32,000 was issued as medium term loans to vine growers. An interest rate of six per cent is charged.

The Debt Settlement Board, operating from 1940 to 1945, found evidence of widespread and burdensome rural indebtedness contracted on usurious terms. The Board's activities brought about a reduction of the capital sum and/or of the rate of interest in 16,721 cases, of which 14,280 were settled by agreement between the parties concerned, a compulsory settlement being imposed in the remaining 2,441 cases. The rate of interest chargeable is limited by law to nine per cent, since November 1944 (see above under Economic Legislation).

Field Crops

The total area shown as being under field crops in 1946 was 1,657,600 donums. The greater part of the arable land lies in the Mesaoria. Of this total area under field crops, three-fifths was devoted to the chief grain cereals (wheat, barley, and oats), one-eighth to vines, and one-ninth to fodder legumes (mainly vetches). The remaining area was taken up by green fodders (six per cent of the whole), tobacco, cotton, and other industrial crops (five per cent) food legumes (four per cent), potatoes (two per cent), and onions, and tomatoes (less than one per cent).

Cyprus has three main types of annual crops :—

(*a*) Those which can be grown entirely on the limited winter rainfall, e.g., wheat, barley, broad beans, linseed.

(*b*) Those which can be grown in spring and early summer on moisture stored in the soil from the late rains or from flood irrigation during and immediately following the winter rains and snow ; these include " dry " cotton, melons, fodder, maize, and tobacco.

(*c*) Those crops which are grown in the full summer by means of perennial irrigation, including irrigated cotton, lucerne, and haricot beans and other summer vegetables.

An intermediate category of crops, grown partly under rainfall and partly under irrigation, includes potatoes and most winter vegetables.

The bulk of Cyprus cultivation is devoted to grain cereals which occupy almost two-thirds of all cultivated land outside the Hills area, and together with the green fodder crops some 70 per cent of the total.

The areas under the principal field crops and annual production are shown in the tables below :—

ACREAGE UNDER FIELD CROPS *donums*

	Average 1935–39	*Census* 1946	1948	1949	1950
Grain Cereals	958,520	987,900	974,316	982,520	966,529
Wheat	573,913	596,200	551,701	550,030	557,879
Barley	344,464	350,200	389,929	396,175	369,835
Oats	40.143	41,500	32,686	36,315	84,815
Vines	...	208,300	...	...	...
Fodder Legumes	...	189,900	197,448	179,284	185,115
Vetches	167,642	169,200	180,040	161,897	164,449
Vicos (grain)	...	10,900	7,913	7,892	9,191
Favetta	14,808	9,800	9,495	9,495	11,475
Green Fodders	...	97,100(1)	...	...	...
Industrial Crops	71,559(2)	75,500	52,337(2)	52,931(2)	98,387(2)
Tobacco	2,393	21,700	6,847	7,570	10,048
Cotton	35,268	19,300	15,727	18,233	40,826
Sesame	14,003	16,800	15,122	11,762	26,476
Aniseed	324	9,500	1,297	832	3,460
Cumin	12,273	5,100	8,474	7,893	11,840
Flax	6,641	1,500	4,323	6,128	5,182
Broom Corn	...	1,000	...	...	...
Hemp	657	600	547	513	555
Food Legumes	33,462(3)	58,500	49,255(4)	52,986(4)	57,809(4)
Broad Beans	19,457	24,200	20,069	22,155	19,440
Cow Peas	8,752	11,100	10,356	10,722	16,575
Haricot Beans	5,253	7,900	8,360	8,524	11,401
" Louvana "	...	5,200	5,697	5,746	4,372
Chick Peas	...	5,100	...	...	...
Lentils	...	5,000	4,773	5,839	6,021
Potatoes	20,365	30,700(5)	34,127	28,533	32,106
Onions and Onion Sets	4,826	4,900	4,613	3,564	4,141
Tomatoes	...	4,800	...	...	...

... = Not available.

(1) Made up of green barley (63,500 donums), green vicos (17,400 donums), green oats (13,700 donums), maize (1,800 donums), lucerne and beerseem (700 donums).

(2) Excluding broom corn.

(3) Excluding " louvana ", chick peas, and lentils.

(4) Excluding chick peas.

(5) Comprising summer crop (15,000 donums), winter crop (14,400 donums), hill crop (1,300 donums).

PRODUCTION OF FIELD CROPS

	Unit of Quantity	*Average* 1935-39	1946	1948	1949	1950
Grain Cereals	bushels	4,575,669	4,713,900	3,406,955	5,391,306	4,300,055
Wheat	,,	2,143,469	2,206,500	1,291,989	2,342,856	2,000,693
Barley	,,	2,213,132	2,284,000	1,947,752	2,834,677	2,148,057
Oats	,,	219,068	223,400	167,214	213,773	151,305
Vine Products						
Common Grapes ..	tons	49,600	53,875	49,730	63,766	61,852
Common Raisins (1)..	,,	4,230	4,590	2,715	5,313	7,242
Sultana Raisins (1) ..	,,		83			
Table Grapes	,,	...	1,215	...	...	...
Wines, etc. (1)						
Commandaria	gals.	67,614	38,556	92,628	82,584	139,536
Other Wines	,,	3,543,485	3,375,576	2,814,786	3,650,004	2,859,012
Spirits	,,	227,830	403,135	347,379	447,599	354,885
Vinegar (2)	,,	178,199	25,023	4,051	5,957	14,224
Fodder Legumes						
Vetches	bushels	235,979	289,400	250,078	272,240	274,671
Vicos	,,	...	41,200	29,105	35,076	37,036
Favetta	,,	25,317	20,700	16,173	18,928	23,306
Industrial Crops						
Tobacco	tons	100	1,319	409	547	799
Cotton, seed	,,	1,212	757(3)	391	677	1,634
Cotton, lint	,,	599		195	333	700
Sesame	,,	266	398	261	273	469
Aniseed	,,	21	548	67	50	182
Cumin	,,	601	299	450	472	671
Flax, seed (linseed) ..	,,	771	109	191	454	163
Flax fibre	,,	81	43	34	30	12
Broom Corn (threshed)	,,	...	43	...	...	...
Hemp, seed	,,	28	23	20	18	18
Hemp, fibre	,,	76	57	61	57	71
Food Legumes						
Broad Beans	tons	3,003	3,356	2,346	3,408	2,287
Cow Peas	,,	355	288	256	330	328
Haricot Beans	,,	457	621	695	920	1,353
" Louvana "	,,	...	475	520	598	359
Chick Peas	,,	...	271	...	...	...
Lentils	,,	...	244	308	385	366
Potatoes	tons	25,650	34,810	43,354	35,733	43,566
Onions						
Ware Onions	tons	4,640	4,978	4,272	3,579	4,254
Onion Sets	,,	638	583	214	360	468
Tomatoes	,,	...	3,914	...	...	...

... = Not available.

(1) Derived from the common grapes shown above.

(2) Exports.

(3) Unginned cotton.

Grain Crops

Annual production of grain crops—wheat, barley, and oats—varies widely according to rainfall. The principal crop, wheat, is grown usually after fallow in most parts of the Island, but chiefly in the Mesaoria and the Karpas peninsula. Consumed as bread, wheat is the Island's staple food grain and domestic production is supplemented by substantial imports which in post-war years have been of the same order of magnitude as the domestic production. Barley too is grown chiefly in the Mesaoria, but also elsewhere in substantial quantities together with wheat, but to a greater extent on the lighter and more shallow soils. Barley is normally used mainly as an animal food, and in good years a substantial surplus is exported. Cyprus barley is of high malting quality.

Some hundreds of wheat varieties have been tested by the Department of Agriculture, and several of these—such as B.X.I.P.I., Hamira, and the Egyptian wheat Giza 4—have been introduced into the Island with some success. The old varieties, however, seem well adapted to local conditions and there is little indication as yet that any exotic wheats will greatly outyield them. Similar trials have been made of non-indigenous varieties of barley and oats, but so far without noteworthy results. It has been found that the yield of cereal crops may be increased by 20 per cent or more, by the previous ploughing in of a crop of green legumes grown in the preceding biennial fallow. Under current labour and cost conditions, however, the extra yield is more than offset by the additional outlay involved.

Average yields for the major grain crops per acre in 1946 were as follows:

	bushels	*lb.*
Wheat	11·2	670
Barley	19·7	880
Oats	16·3	590

Yields were highest in the Plains and lowest in the Hills; yields in the North Coastal area were higher than those of the South Coastal area. The highest average yields were in Larnaca and Famagusta Districts, the lowest in Limassol District.

Government was the sole purchaser of wheat in 1949 and 1950, at a price in both years of £31 2s. per ton. Government also purchased barley, to the extent of 34,000 tons in 1949 at £20 per ton, but only to an insignificant extent in 1950 when the price offered, of £17 15s. per ton, was less than that offered by private merchants.

Fodder Legumes

The fodder legumes (vetches, vicos and favetta) and the green fodder crops, together occupied about one-sixth of the area under field crops in 1946, and accounted for roughly one-tenth of the gross farm product. Grown as a rotation crop on cereal lands, they are of particular importance in a country such as Cyprus where permanent pasture is virtually non-existent owing to the climate. The yield of vetches in 1946 averaged 5·14 bushels (or 348 lb.) per acre in the Island as a whole, being highest in the South Coastal and Hills areas and especially in

Paphos and Limassol Districts. Experiments by the Agricultural Department between 1941 and 1948 have demonstrated that vetches can be grown alternately with wheat or barley, and can be used for grazing, not merely without harm but actually with benefit to the subsequent cereal, as the records clearly show :

Crop Year	*Yield of Wheat *(okes per donum)*		*Relative Fertility, i.e. (b as % of a)*
	(a) After bare fallow	*(b) After grazed legume*	
1941–42 ..	42	47	112
1943–44 ..	61	82	133
1945–46 ..	50	76	153
1947–48 ..	34	57	168

*1 oke = 2⅘ lbs.

This grazing provides especially valuable food for livestock during the spring, at the time of maximum milk flow and the height of the cheese-making season and when natural pasture is dying off and other stubble grazing is not yet available.

Viticulture

Vines are grown mainly in Paphos and Limassol districts, on the lower southern and eastern slopes of the Troodos massif, where large numbers of cultivators are entirely dependent on vine-growing as their sole means of livelihood. The area under vines is the largest under any individual crop except wheat and barley. The 1946 census area corresponds ill with that of the previous survey, no doubt owing to inclusion in the latter of areas not always under vines, and to use of the local donum and deliberate under-statement. The survey gives 314,500 donums under vines, the census of 1946, 208,200. The yield of grapes per acre in 1946 was estimated to be approximately 16·8 cwt., on average, and considerably more in Paphos and Limassol Districts. Vine products are disposed of as raisins and table grapes, and form the basis of the wine-, spirits-, and vinegar-making industries. Although there is some domestic consumption, vine-growing is heavily dependent on export demand.

Demand for wines and spirits was vigorous in the war and immediate post-war period, and prices were high. In the last quarter of 1948, however, prices began to fall ; the decline continued in 1949 and prices were reached which were only some three-fifths of the previous level. Government came to the aid of growers, first by buying some 750,000 okes of zivania (grape alcohol) remaining from the 1948 harvest, and then by putting into operation the Vine Products Scheme. This provided for the purchase by Government of all zivania and raisins produced, any loss to be borne by the public revenue and any eventual profit to be distributed to producers. Overseas demand was late in developing, and large stocks of zivania were in store at the end of 1949, hindering further purchases. The grape harvest in 1950 was again excellent, and only slightly below the bumper crop of the previous year. The Vine Products Scheme continued in operation ; demand was substantially improved, and at the end of the first year's working of the scheme, in August 1950, a profit of £17,000 had been realised and was distributed to growers. During 1949 for the first time, table grapes (some 1,000 tons) were shipped to the United Kingdom, under refrigeration. Similar exports continued in 1950, to the United Kingdom and to Scandinavia.

A subsidy scheme was introduced in 1942, to encourage replanting and regrafting with improved varieties. With the high prices ruling in war-time, the scheme had only very limited success in spite of the near doubling of the rate of subsidy in 1944, but there was some improvement after 1946 although prices continued high and growers complained that the subsidy of 45s. per donum was inadequate compensation for the loss of income, additional work, and risk involved. However, during the period 1938-48 the area of Sultanina grapes increased from 549 to 2,760 donums and that of Malaga and other grapes from 223 to 4,734 donums, of which 3,022 donums were Malaga.

Vegetables

Grown mostly under irrigation from sub-surface water, *potatoes*—of which production was negligible before 1914-18—have since come to occupy an important position in Cyprus agriculture, ranking high among the crops which make a significant contribution to the farm element of the Island's gross national product, and third by value in 1948 and 1949 among exports of agricultural produce, close after carobs and citrus fruit. The crop is cultivated most intensively in the Mesaoria, particularly in the east coastal region about and to the south of Famagusta, and in the neighbourhood of Nicosia. Seed saved from the November harvest has the disadvantage that it is usually still dormant at the time of planting, in February. War-time experiments to hasten breaking of dormancy met with some success but not such as to be economically applicable once commercial imports could be resumed. Consequently, domestic seed production is heavily supplemented by large imports, chiefly from the United Kingdom. The standard imported variety grown in Cyprus is "Up-to-Date" ; experiments with other varieties have produced none which gave similarly consistent high yields. "Arran Banner" has been imported when insufficient supplies of "Up-to-Date" were available, and does well as a first crop but is markedly inferior to "Up-to-Date" in the second and subsequent crops. The crop from the small planting of potatoes in the hills is harvested in September and this seed is ready for use in the following January or February. The quantity of seed available from this crop is small, however, and it is produced by a large number of smallholders which makes its collection difficult to organise commercially. Infection by virus diseases causes potato crops rapidly to deteriorate in Cyprus, seriously reducing yields. To assist growers to obtain the most reliable seed available, a Seed Certification Scheme was initiated in 1944. First and second generation crops from imported seed are inspected during growth by staff of the Agricultural Department, for freedom from virus and other diseases, trueness to type, and general vigour. Certificates are issued to owners, and labels are required to be included with each bag of seed sold, making it possible to identify the grower. Potatoes other than seed potatoes are exported from Cyprus chiefly to Palestine, Greece, Egypt, Libya, Ceylon, and Malaya ; exports of seed potatoes are consigned mainly to Greece, the Lebanon, and other parts of the Levant. The average yield of potatoes in 1946 was 68·6 cwt. per acre (winter crop 67·7 cwt., summer crop 72·3 cwt.). Yields were considerably above the average in the Plains area at 77·4-88·7 cwt. per acre.

The area under *melons and green vegetables* (chiefly colocasi, marrows, cucumbers) was not given in the 1946 census returns, but is probably of the order of 6,000 to 7,000 donums of perennially irrigated land. The principal areas for melons and water melons are Morphou in the west and the Famagusta area in the eastern part of the Mesaoria. Green vegetables are grown in the coastal areas principally about Kyrenia and Paphos and in the peninsula south of Famagusta. Tomato growing is widely practised on a small scale, and with somewhat greater intensity in the Karpas peninsula and to the south of Famagusta (i.e., in the Cape Greco peninsula). Onions, cabbage, cauliflower, lettuce, etc., also are grown, largely near to the point of consumption in the neighbourhood of the towns. Production of most varieties is chiefly for domestic consumption, but substantial quantities of onions and onion-sets are exported each year, largely to Egypt and to markets in north-west Europe.

Production in 1946 of melons and miscellaneous vegetables, etc., was as follows : water melons, 5,798 tons ; sweet melons, 1,081 tons ; fresh broad beans, 970 tons ; string beans, 265 tons ; beetroot, 173 tons ; cauliflower, 1,075 tons ; colocasi, 2,126 tons ; cucumber, marrow, etc., 4,504 tons ; other, about 400 tons.

Attempts have been made to establish seed production in Cyprus. Trials were carried out by the Agricultural Department from 1941 onwards, first with *vegetable seeds* and later also with *flower seeds.* Commercial growing met with success and expansion was rapid in the early post-war years, but competition became increasingly severe as established growers overseas reattained full production, and the future of the industry remains in doubt.

Industrial Crops

Areas planted and production of the principal types of tobacco grown in Cyprus, are shown in the following table :—

TOBACCO : AREA AND PRODUCTION, 1935-50

Year	*Yellow-Leaf*	*Fumi-gated*	*Virginia*	*Total*
Area (donums)				
1935-39 Average ..	1,888	505	—	2,393
1945-49 „ ..	9,655	1,523	93	11,271
1948 Actual ..	6,782	65	—	6,847
1949 „ ..	7,306	95	169	7,570
1950 „ ..	9,474	503	71	10,048
Production (tons)				
1935-39 Average ..	75	25	—	100
1945-49 „ ..	533	146	9	688
1948 Actual ..	401	8	—	409
1949 „ ..	447	86	14	547
1950 „ ..	574	221	4	799

Yellow leaf (Turkish type) tobacco has been grown in Cyprus since about 1913 as a commercial crop, and a fumigated (Latakia type) has been cultivated over a number of years to a smaller extent. Expansion was stimulated by the abnormal conditions of the first world war, but between the wars the industry declined, almost to the point of extinction by 1938. In the second world war expansion again took place and in 1946 the yellow-leaf crop reached the record amount of 940 tons and fumigated tobacco almost 340 tons. A marked fall in 1947 was followed by renewed expansion which was maintained through 1948-50. Production in 1950, however, remained below that of 1946. Experimental plantings of Virginia type tobacco were made during the second world war. Although investigations have indicated that success with these varieties is somewhat improbable, private growers in the Vassili area of the Karpas peninsula working under contract planted an increased acreage to imported American and Southern Rhodesian types during 1949. Trials are being made of *nicotiana rustica* for the extraction of nicotine as a basis for insecticides.

Local manufacturers use a large proportion of imported leaf, and domestic growers are heavily dependent on export demand for their tobacco, which has hitherto remained of somewhat inferior quality. Exports are mostly to the United Kingdom, Egypt, and Czechoslovakia, but in 1949 and 1950 significant quantities of fumigated tobacco were exported to the United States of America (21 tons in 1949 valued at almost $9,000 and 74 tons in 1950 valued at approximately $30,000), and in 1950 a small quantity of yellow leaf was exported to the United States of America (nine tons, valued at $1,560).

The Agricultural Department continues to pursue improvement of the quality of yellow-leaf tobacco, by study, experiment, and advice concerning strains and methods of cultivation and preparation. In this they are helped by the system in force, primarily for fiscal purposes, which prohibits tobacco-growing except under licence.

Cotton is grown mostly on land subject to spring flooding and, to small extent, under perennial irrigation. Cultivation is confined to some 40,000 donums chiefly in the Karpas peninsula of the north-east. In Venetian times (16th century) the crop was of considerably greater relative importance than to-day, then ranking with wheat and barley as one of the most important single crops. Experiments have been made with several non-indigenous varieties. The variety Mesowhite after initial experimental success, proved inferior under farming conditions to the local varieties and its cultivation was later abandoned. In trials with American varieties, Mesowhite, and two local varieties, the American variety "Coker 100," proved superior to all the others under both irrigated and dry conditions. From 1942 to 1944 certain areas were segregated and producers there were allowed to plant only "Coker 100" but further extension was prevented for the time being by shortage of pure seed. With the stimulus of high prices and, in 1949-50, favourable climatic conditions, cotton cultivation expanded considerably, while the variety "Coker 100" continues to gain in reputation and popularity.

Flax, or linseed, is cultivated on about 2,000 acres in the neighbourhood of Morphou and other parts of the Mesaoria. Production in 1950 amounted to some 12 tons of fibre and 160 tons of linseed. *Sesame* is cultivated for the sake of the oil which is expressed from the seed, mainly in the Paphos area of the south-west coast, and chiefly by flood irrigation.

Cumin and aniseed are grown in the Morphou and Lefka areas, under perennial irrigation.

Tree Crops

The following table indicates the extent to which the principal tree crops have been cultivated in recent years :—

PRINCIPAL TREE CROPS

Number of Trees

	Average 1935-39	*Census* 1946	1948	1949	1950
Carobs	2,200,000	1,919,978	1,927,725	1,935,472	1,955,457
Olives	...	1,678,088	1,737,044	1,796,000	1,857,000
Citrus		1,260,472(1)			...
Pomegranates	...	133,319	137,302	150,251	165,030
Bananas		12,076			...
Figs	83,295	141,738	158,347	173,139	186,267
Apples	34,970	101,600	122,613	139,304	157,267
Pears	10,674	27,389	30,671	33,477	36,857
Peaches	10,310	19,259	22,570	25,566	28,860
Apricots	41,759	74,327	81,705	88,464	93,859
Cherries	5,932	30,886	37,405	42,995	48,299
Plums	16,758	29,862	34,221	37,425	40,251
Almonds	536,659	1,024,837	1,138,756	1,212,085	1,282,151
Hazelnuts	47,379	47,904	50,986	52,172	52,271
Walnuts	...	21,941			...
Other nuts	...	560			...
Mulberries		159,384			...

... = Not available.

(1) Comprising oranges, 982,427 (main crop, 903,000 ; valencia, 33,000 ; bitter, 46,118) ; mandarines, 39,409 ; lemons, 166,093 ; grapefruit, 59,670 ; sweet limes, 12,873.

TREE CROPS *Production*

	Unit of Quantity	*Average 1935-39*	1946	1948	1949	1950
Carobs	Tons	43,680	41,680	42,104	36,891	35,273
Olives	,,	8,440	6,201	6,688	20,945	9,779
Olive Oil(1)	,,	1,377	923	1,168	3,906	1,695
Citrus(2)	000's					
Oranges, main crop ..	,,	64,574	87,945	77,583	80,715	86,926
Oranges, Valencia ..	,,		2,258			
Oranges, bitter	,,		2,045			
Mandarines	,,	...	9,026	...	...	...
Lemons	,,	13,772	34,400	27,204	23,055	25,109
Grapefruit	,,	4,000	6,116	13,103	15,894	14,000
Sweet limes	,,	...	637	...	...	...
Pomegranates	Tons	2,767	1,516	1,245	1,174	1,722
Bananas	Bunches	...	35,300	...	...	...
Figs, fresh	Tons	2,677	2,497	3,401	2,348	2,881
Figs, drying	,,		420			
Apples	,,	301	660	616	572	580
Pears	,,	145	116	43	250	33
Peaches	,,	117	137	148	206	93
Apricots	,,	913	714	421	795	371
Cherries	,,	122	162	105	207	207
Plums	,,	276	276	203	276	218
Almonds	,,	671	1,081	523	1,334	1,178
Hazelnuts	,,	95	109	71	113	37
Walnuts	000's	...	8,214	...	...	...

... Not available.
(1) Derived from the olives shown above.
(2) Numbers per case are : oranges, 140 ; lemons, 210 ; grapefruit, 90.
The average weight of a case of citrus fruit is roughly 56 lb., i.e. 40 cases=1 long ton, approximately.

Olives

The *olive tree* is indigenous to and grows wild in Cyprus. Systematic cultivation of grafted stock is carried on most intensively in the north coastal strip about Kyrenia, and near the south coast in the western half of Larnaca District and the adjoining corner of Limassol District. The yield in 1946 averaged 8·7 lb. per tree, and was 12·6 lb. per tree in the Hills area and in Nicosia District. The entire output is consumed domestically and substantial quantities of olives and of olive oil are imported so that there is ample room for expansion of olive growing which is vigorously encouraged by the Agricultural Department as also is the improvement of varieties grown. Oil extraction has hitherto been mainly by means of primitive hand presses. At the 1946 census there were 509 wooden screw-presses, 424 iron screw presses, and 47 hydraulic screw presses in use. More hydraulic presses have since been imported, and they numbered 68 in 1948 compared with 30 in 1939. The use of modern hydraulic presses and other processing equipment has increased and is increasing ; up to 1949 this had resulted mainly in improvement of extraction rates, but in 1950 there were signs of improvement also in the quality of oil extracted. A sharp fall in prices took place in 1949 in sympathy with world market prices for edible oils, and in reaction, no doubt, also, to an exceptionally abundant domestic crop ; stocks were low in 1950, however, and prices rose sharply.

Carobs

The *carob or locust tree*, like the olive, is native to and grows wild in Cyprus, but the cultivated variety, which is grafted, is of higher value. It is cultivated most intensively in the foothills and coastal plains of Limassol District, in the Western half of Larnaca, and in a north coastal strip about Kyrenia. It flowers in August and September and the fruit develops a year later so that during August flowers and ripe fruit may be found on the same tree. The fruit is in the form of a pod, containing some six to ten hard seeds. The yield of carobs in 1946 was 49 lb. per tree on average throughout the Island, and almost 92 lb. per tree in Famagusta District. The principal use of the fruit is as an animal (mainly cattle) feeding stuff, crushed and made into meal or cake. Other uses are as a foodstuff by the poorer classes in Eastern Mediterranean countries, and in the manufacture of chocolate and sweetmeats. Production is almost entirely for export (whole, " kibbled " (ground), or as seeds), principally to the United Kingdom, France, Palestine and Egypt. A serious pest is the carob rat which destroys the trees by eating the bark. Following a detailed study of the problem made under a Colonial Development and Welfare scheme, new methods are being employed to eradicate or diminish this pest ; early results indicate a large measure of success.

Citrus

The *citrus groves* are chiefly concentrated in the area lying north and south of Famagusta and in the peninsula area to the south-west of Limassol. Other areas of importance are the Kyrenia north coastal strip, and the Morphou and Lefka areas in the Kyrenia strip, oranges and grapefruit in the other areas mentioned. The crop finds a ready market, particularly in the United Kingdom and the Scandinavian countries, and production—especially of grapefruit—continues to expand. The Department of Agriculture is active in supplying new and improved planting material to growers, and since 1946 special efforts have been made to introduce early tangerines and late maturing oranges (Valencias) with a view to extending the season. Exports of citrus fruits from Cyprus begin about the last week of October (i.e., some five or six weeks earlier than in Israel), and are completed by the end of the year ; the earliest shipments go to Scandinavia while those to the United Kingdom begin about three weeks later. The sugar-acid maturity ratio in the period from October to early December is from 5 : 1 to 6·5 : 1, thus being less than the 7 : 1 or more which is usual in the Israel crop, shipments of which begin in late November ; this is apparently in accordance with the taste of the market. The average yields of citrus fruit in 1946 (expressed as fruit per tree) were : oranges, 99 ; grapefruit, 103 ; lemons, 209.

Mulberries (and Silk)

At the time of the 1946 census there were some 160,000 *mulberry bushes*, the leaves of which provide the food for the Island's silkworm population and thus the basis of the sericulture industry. Trees are confined mainly to the Kyrenia north coast and one or two small areas of woods. Cyprus can produce silk of a quality comparing well with any in the world ; but future markets are uncertain. Silkworm egg farmers are licensed and must have spent one year at the Agricultural Department's sericultural station to learn the necessary technique. The rearing of silkworms and production of cocoons is organised as a cottage industry, carried on largely by peasant women in their spare time.

The Island's silk trade includes the export of seed, of cocoons, and of factory reeled silk. In the inter-war period Cyprus had difficulty in meeting competition from artificial silk, from real silk produced in Japan, and from heavily subsidised French filatures. With the outbreak of war Cyprus silk became again in strong demand and after 1942 the entire production of cocoons and processed silk was taken by the Ministry of Supply. In addition 5,000 oz. of seed were exported in 1943, mainly to Kashmir, and 13,000 oz. were raised in 1944 of which 7,200 oz. were exported. Cocoon production declined through 1948 and 1949 but increased slightly in 1950, to nearly 120 tons.

Other Tree Crops

In addition to citrus fruits, grapes and olives, a wide variety of deciduous and other fruits and nuts are grown, for which the climate of the Hills (Troodos) region is particularly suitable. Pomegranates, figs, and almonds are exported on a substantial scale, apples, cherries, hazel and other nuts to a smaller extent. There is a good local demand, both from the local population and from summer visitors, for these and for other deciduous and soft fruits grown in Cyprus, including pears, peaches, apricots, plums, gooseberries, blackcurrants, and redcurrants.

Since 1939-40 the Department of Agriculture has carried out progressive experiments and demonstrations in improved methods of fruit drying which have been markedly successful ; it is estimated that previously out of a production of some 180-200 tons of figs 30 tons only were used for bleaching, while some 50 tons were sold unbleached, and the remainder fed to pigs ; the proportion bleached has risen steadily, and in 1948 some 220 tons were bleached whereas only half a ton was sold unbleached, the quantity fed to pigs being negligible. Exports of figs have risen as follows :—

EXPORTS OF FIGS

	1934-39 *average*	1943-47 *average*	1948	1949	1950
Quantity (cwts.)	232	1,899	2,153	3,619	4,891
Value (£) ..	273	11,391	9,720	13,984	20,027

Livestock

The Island's livestock population is composed, and has varied in recent years, as follows :—

LIVESTOCK *Numbers*

	Average 1935-39	*Census* 1946	1948	1949	1950
Horses	4,241	3,318	4,394	...	4,991
Mules	9,175	9,713	9,733	...	8,471
Donkeys	52,812	58,572	53,989	...	51,214
Camels	831	821	786	...	598
Cattle	38,444	39,889(1)	36,932	...	32,538
Sheep	293,714	337,423	291,346	304,180	287,405
Goats	211,808	197,138(2)	186,534	166,945	153,986
Pigs	31,423	36,466	43,877	27,321	33,317
Poultry	...	541,638(3)	...	...	...
Rabbits	...	16,357	...	...	...
Beehives, all types	...	24,223	...	...	...

... = Not available.

(1) Comprising : adult dairy breeds, 925 ; adult native breeds, 30,647 (cows, 15,550 ; bulls, 1,981 ; oxen, 13,116) ; under one year. all kinds, 8,317.

(2) Of which tethered, 39,972 (imported types, 29,701 ; other, 10,271) ; free-ranging, 157,166.

(3) Consisting of : fowls, 531,300 ; turkeys, 6,148 ; ducks, 1,469 ; geese, 2,721.

The output of the principal livestock products in recent years was :—

LIVESTOCK PRODUCTS

	Unit of Quantity	*Average* 1935-39	1946	1948	1949	1950
Cheese ..	tons	814	565(1)	458	367	577
Wool ..	tons	317	342	273	—	307
Hides and Skins	tons	134	400(2)	206(2)	368(2)	324
Eggs ..	000's	...	19,876(3)	...	...	...
Honey ..	tons	...	41	...	...	...

(1) This probably excludes a considerable amount of domestic production ; it is estimated in the census report that of the total milk production in 1946 (11·68 m. okes), approximately 8 m. okes were used for cheesemaking, 5·8 m. okes to make, roughly, 1 m. okes of " halloumi," and 2·2 m. okes to make about 0·36 m. okes of " hard " cheese.

(2) Exports.

(3) Eggs produced on farms only.

Livestock, other than sheep, are distributed in general more or less evenly throughout the Island, but rather more sparsely (except for tethered goats) in the Troodos region. The total grazing flocks in Cyprus were little different in 1946 at 519,000 from the date of the British occupation in 1879 when they were 522,000. During the intervening period there have been marked fluctuations reaching a maximum of nearly 600,000 and a minimum of 400,000, and a tendency has been noted to shift away from goats and towards more sheep-rearing. It has been estimated that conditions of pasturage, etc., in Cyprus are inadequate properly to support grazing flocks of more than about 450,000.

Owing to climatic conditions and the extreme scarcity of natural pasture Cyprus is very largely dependent for meat and dairy produce on the herds of goats and sheep which are able to subsist on rough grazing on stubbles and fallow, on marshy or poor land not suitable for cultivation, and on the scrub land in the foothills of the mountains. Flocks of goats and sheep must be attended by licensed shepherds, each of whom is permitted under the law in force to tend 120 animals in summer and 80 in winter, with the result that flocks are commonly made up to these levels by pooling arrangements.

Sheep

Sheep rearing is carried on more extensively about Nicosia and in the Karpas peninsular and the eastern part of the Mesaoria. The sheep are of the fat-tailed variety originating from Persia and Central Asia, and similar to those of Syria and Israel. The average milk yield of the ordinary free-grazing flock is about 90-100 lb. a year ; this is less than that of free-ranging goats, but the milk is roughly twice as rich, with a butter-fat content at about 8 per cent. The Government Stock Farm flock of sheep, over the eight-year period 1935-42, averaged 156 lb. of milk (excluding a suckling period of approximately sixty days) with a maximum yield of 342 lb. in 159 days. The milking period extends through about six months of the year. In addition to the milk, for which they are largely reared and which is for the most part made into cheese (mainly the "halloumi" variety), the local sheep also yield a meat superior to that of the goat, and a fair fleece of 4½-6 lb. of wool which is somewhat coarse and chiefly exported for carpet-making or used locally to make clothing of a rough type. The rough grazing on which the sheep feed throughout much of the year is supplemented during the lambing and milking season with barley, legume straw, and green forage crops.

Goats

The goats are of two types: "free-ranging", and "tethered" or household goats. Their milking period, like that of sheep, extends over only about half the year. The former, the free-ranging type, are hardier but of lower milk yield. The flock owners often possess no land of their own, and by age-long custom the shepherds have come to regard it as their right to graze flocks not only on uncultivated land, but also on any land where a crop is not actually being grown, and on the stubble following a cereal crop. The milk yield of free-ranging goats may be of the order of 200 lb. per annum. By the application of the Goats Laws, free-range goats have been eliminated from many villages in the interests of good husbandry, forest protection and soil conservation. Under the Laws a village may be prescribed on the request of a majority of the villagers, and in recent years much progress has been made in establishing cordons of such villages around forest reserves. The villagers are encouraged and assisted to acquire superior types of tethered goats to replace the free-ranging variety.

Tethered or household goats in 1946 represented one-fifth of the Island's goat population. These are kept in yards, gardens and orchards, and tended by the women of the household; they are fed on household scraps, grain and straw. There is ample evidence to suggest that by the rearing of tethered goats of suitable breeds, and by adequate and well-designed feeding, very greatly enhanced milk yields can be obtained, ranging from 450 lb. to upwards of 1,000 lb. per annum, of a butter-fat content between four and six per cent. Maltese and Damascus goats have been imported with success, and in early 1949 goats of the high-yielding British Saanen type were introduced experimentally from the United Kingdom. The policy of encouraging the substitution of tethered goats for the free-ranging kind has stimulated the interest of breeders and others in the higher-yielding types, and the general standard of goat-management is improving.

Cattle

European dairy cattle thrive quite well in Cyprus in spite of high summer temperatures and otherwise rather unfavourable climatic conditions. The dairy cows maintained in the Island are almost entirely of the imported Dairy Shorthorn breed. Natural pasture is lacking and fodder has to be grown specially so that maintenance is expensive. But milk yields are much higher than is the case with sheep or goats and milk can be obtained all the year round. Yields of the Government Stock Farm herd have averaged almost 9,000 lb. per lactation. The record yield for the farm was of 15,124 lb. by a Shorthorn-Friesian cross in 1940; the highest yield for a pure bred Dairy Shorthorn was 14,924 lb. in 1942. The butter-fat content, in the period 1939-48, averaged about 3·5 per cent. The breeding aim of the Department is now to build up a uniform herd of Dairy Shorthorns. Dairy cows are found only near the larger centres of population, as cow's milk is not part of the diet of the ordinary Cypriot peasant, though with rising living standards demand has increased during the last decade.

Native cattle yield no surplus of milk for human consumption but are employed mainly as draught oxen, being maintained usually in pairs on farms of medium or larger size (roughly, 70 donums or more). A pair of oxen form the traditional plough animals in Cyprus, and double ox-carts are common. The usual farm cart, however, is drawn by a single horse or mule, and equines are increasingly used as plough animals.

Horses

Horses are bred in Cyprus primarily for the production of mules or jennets, but also for ordinary riding purposes (e.g., for police use) and for farm work. The native breed of ponies is small, usually about 13 hands, but strong and hardy; the best come from Paphos district where they formerly ran free in the forest. Some general improvement in the size and quality of local horses has been achieved by the importation for stud purposes of thoroughbreds and of Irish draught horses, and since 1936 by crossing donkeys with cast army mares.

Donkeys

Donkeys are bred in the Island not only for the production of mules and jennets but also for use themselves as draught or pack animals, for threshing, water-wheel irrigation, and for all forms of farm transport, but especially for the farmers' personal transport about their holdings. Donkeys are commonly maintained singly, on all sizes of holdings. The native breed are of good quality and can carry loads of from 170 lb. to 220 lb. and more. Government seeks to preserve and if possible to improve upon existing standards both by maintaining jack donkeys for stud purposes and by paying premia for their maintenance to the owners of selected jacks reserved for breeding.

Mules

Mules are bred for use in the Island as pack and draught animals, and for export. A large proportion are more properly called jennets, being bred by stallions out of donkey mares; these are preferred for pack work and mules proper (the product of a jack donkey and a mare) for harness work. Cyprus mules are unusually docile and of high quality, and are strongly in demand. Most are from 13-14 hands (export mules are often up to 15 hands) with a girth of 60-66 inches and a shank measurement of 6¾-7½ inches. Having straight backs and well-arched ribs, Cyprus mules possess exceptional carrying powers and can support pack loads of 350-450 lb. for a day's journey of up to 16 miles; in harness they will travel up to 50 miles in a day.

Camels

Camels, which were known in Cyprus in the early 14th century, are still used, though less than formerly, no doubt owing to improved roads and more rapid forms of transport.

Pigs

The pig population of the Island tends to vary directly with the supply of barley. The long-snouted, razor-backed, native pig has given way rapidly to improved types, the result of crossing with imported breeds. Of these, the Large Black, imported from England, was pre-eminently successful and pigs of any other type are now a rarity in Cyprus. Bacon and sausage are made in the villages by traditional methods.

Poultry

The Agricultural Department has carried out trials for a number of years to select exotic varieties of fowl best suited to local conditions, and to develop better laying strains from the mixed breeds found on the Island. Of the imported breeds tried, only Rhode Island Reds, Light Sussex and White Leghorns were still retained in 1938, and only the Rhode Island Reds and the Light Sussex after 1939. Annual average egg production of these two varieties, over a five-year period, was 158 and 132 respectively. The local birds tested were of two main types: "Speckled" and "Black." The former had a low yield and high mortality. The latter, of the Minorca type and since known as "Cyprus Blacks," have been used to produce by selection a true to type strain having higher laying powers. Trap nest records indicate a good measure of success, the yearly average egg production having risen from 121 in 1939-41 (107 in 1939), to 140 in 1942-44 and 151 in 1946. Mature Cyprus Black hens lay eggs of good shape and texture, ranging from 1¾ oz. to 2 oz. in weight, i.e., somewhat smaller than those of the Rhode Island Reds.

With assistance from Colonial Development and Welfare funds, vigorous efforts are being made to promote the segregation and proper housing of poultry and to raise the standard of domestic poultry keeping throughout the Island. A Poultry Officer has been appointed, and three poultry instructresses trained. Advice, demonstrations and propaganda are directed primarily at the womenfolk of the villages who normally have charge of household poultry.

Diseases and Parasites of Livestock

With the very valuable help of the Onderstepoort Laboratories, South Africa, substantial advances have been made in the control of Blue-tongue disease (Stomatitis) in sheep and a vaccine developed which was used with marked success after 1946 at first to arrest and later to prevent the onset of the disease. The treatment of sheep and goats with anthrax vaccine has been compulsory for a number of years ; over 600,000 animals are treated annually. The ox warble fly was formerly a serious pest which hindered the full working of draught oxen during the spring and thereby did considerable harm to the Island's agricultural economy, as well as impairing the quality of hides for tanning by its habit of boring under the animals' skins. An intensive campaign was begun in December, 1938, as a result of which the fly was virtually non-existent by early 1942, at a total cost of £1,700 (excluding the salaries of permanent staff) ; from 1942 to 1946-47 a reward of £1 was paid to any person producing for inspection an animal having a warble fly, after which the system was discontinued as it was assumed the fly had been totally eliminated. It is believed that this is the first occasion in any country on which a fly pest has thus been entirely eradicated.

Forestry

The total forest area of Cyprus is almost 660 square miles (or 18 per cent. of the area of the island), of which 630 square miles is State forest while the rest is owned by private individuals. Main State Forests which comprise 532 square miles and include all the mountain catchment areas and productive forest are under the control of the Forest Department ; Minor State Forests, amounting to 97½ square miles, are mostly lowland scrub areas used as village fuel and grazing grounds and under the control of the District Commissioners. Four hundred and thirteen square miles of Main State Forests, of which a quarter is well stocked and exploitable, are included in current working plans for protection and improvement.

The mountain forests are mainly coniferous high forest, often with hardwood coppice, and narrow strips of riverine high forest of hardwoods in the valley bottoms. There are also small areas of eucalyptus and acacia plantations in the plains which have been established from 1942 onwards. The primary function of the mountain forests is protection of the water catchment areas and prevention of soil erosion ; thus their present contribution to the economy of the Island is mainly indirect. Conservation measures taken in recent years will in time re-stock the denuded areas and progressively permit the systematic exploitation of the whole. The mountain forests also contribute to the amenities and scenic beauties of the hill resorts which attract tourists from overseas. The productive forest areas are served by good roads.

The amount and value of timber and minor forest products produced in State Forests are shown in the table below :—

FOREST PRODUCTS, 1938 AND 1946-50

Year	*Major Forest Products*							*Minor Forest Products Value*	*All Forest Products Value*
	Logs	*Sawn Timber*	*Other Hewn Wood*(1)	*Firewood*	*Charcoal*	*Total*			
						Quantity	*Value*		
	Cubic Feet						£	£	£
1938	823,221	72,283(2)	8,289	1,646,400	116,264	2,666,457	15,730	292	16,022
1946	443,020	177,814	6,525	1,277,038	105,254	2,009,651	83,995	714	84,709
1947	407,813	219,813	11,462	1,296,169	30,536	1,965,798	48,387	817	49,204
1948	368,693	173,450	4,732	1,249,768	35,600	1,832,243	41,674	1,991	43,665
1949	261,117	200,321	13,177	1,245,865	70,830	1,791,310	34,326	1,120	35,446
1950	352,336	176,598	12,928	1,151,541	30,400	1,723,803	38,800	6,964	45,764

(1) Including woods used in the manufacture of ploughs and furniture.
(2) Includes 61,678 cubic feet of timber for pit props.

The main commercial timbers in Cyprus are Aleppo pine (Pinus lalepensis) and, to a lesser extent, Troodos pine (Pinus laricio) ; both yield good building timbers of a heavy resinous red pine type. The principal hardwoods are Plane (Platanus orientalis) and Alder (Alnus orientalis) which are in fair demand locally for furniture manufacture and a variety of other uses. Golden Oak (Quescus alrifolia), and Arbutus (Arbutus andrachne) are coppiced extensively for small sized timbers and for fuel, including charcoal.

The total output of timber is consumed within the Island, and large quantities are imported in addition :—

TIMBER IMPORTS, 1938 AND 1946-50

Year	*Quantity*	*Value*
	cu. ft.	£
1938	1,191,978	116,930
1946	556,243	195,584
1947	1,087,278	462,263
1948	1,691,939	758,427
1949	776,000	257,832
1950	1,498,955	582,743

No wood-fuel is imported, and that produced from the forests is insufficient to satisfy the demand. To conserve local resources Government has in recent years required the conversion of wood-burning appliances to oil, and to-day very few industries use wood-fuel. The shortage of fuel was simultaneously tackled by the establishment of fuel areas designed to provide cheap supplies for neighbouring villages in the plains.

Goat grazing and fire are the most serious obstacles to forest development. Goat grazing is gradually being brought under control, but fires are still a formidable hazard although less so than previously owing to the improvement of the forest road and telephone systems and to systematic propaganda to enlist the co-operation of the public.

Fisheries

Fishing in territorial waters is supervised by the Comptroller of Customs and Excise, who is also Government Inspector of Fisheries. A licence to fish must be obtained from the Customs but no fee is charged.

The quantity of fish in the seas around Cyprus is poor and they are small in size. In the opinion of experts this is due to the lack of nutrient salts in the water and to the limited area available for bottom fishing. Fishing is mainly by trawl, long lines, and trammel nets. The Government is examining suggestions that the overfishing which is alleged to take place might be prevented by limiting the number of boats, particularly trawlers, and by instituting close seasons.

There is no freshwater or inland fishing. Experiments with freshwater ponds have shown that carp and grey mullet can be successfully reared but that the cost is too high to make such ventures profitable.

Sponge fishing is under Government control. Sponges obtained from the Island's waters are of medium to good quality. The fishermen come mainly from the Dodecanese. The licence fee is £1 for a boat with diving apparatus and 10s. for a boat employing harpoons (naked diving); the former are required to surrender 25 per cent and the latter 20 per cent of their catch to Government. The season is from June to October.

The following statistics relate to fisheries during the years 1944 to 1950 :—

FISHERIES, 1944-1950

Year	*Fish caught*		*Sponges caught*		*Vessels employed in fishing*		*Persons employed*
	Quantity tons	*Value £*	*Quantity tons*	*Value £*	*Rowing and Sailing Boats*	*Motor Boats*	
1944	217	47,570	5	16,920	420	4	
1945	262	61,560	·85	4,490	330	7	
1946	300	68,770	2	10,140	340	9	
1947	333	73,370	1·2	3,290	320	22	
1948	335	59,780	3·75	11,600	310	12	
1949	444	83,315	..	..	300	34	925
1950	453	87,000	..	..	320	29	960

Minerals

Sedimentary rocks occupy about four-fifths of the area of Cyprus, igneous rocks roughly one-fifth. Three main strata are of economic importance. The oldest sedimentary rocks are those of the Trypanean (Eocene and Cretaceous) series which form the ridge of the Kyrenia Mountains. The outcrop is in a narrow band, approximately sixty miles long and three wide, parallel and near to the coast, and terminating in the east at the base of the Karpas peninsula. Resting on the economically unimportant Kytheraean series are the Idalian (mainly Miocene) strata of marls, chalks and limestones. These strata skirt both mountain ranges, having their main outcrop south of Troodos and behind Larnaca, with an extension across the Mesaoria along the Karpas peninsula and on the Kyrenia coastal strip. The igneous rocks outcrop principally in the Troodos massif, an area some 55 miles long by 15 or 20 miles wide, with smaller outcrops at Troulli (north of Larnaca), near Kouklia, and in the Kyrenia range and the Karpas.

The principal economic minerals produced are copper, pyrites, asbestos, chrome, umber and gypsum.

The most active pre-war year for the mining industry was 1938, when the labour force reached 9,200 and the value of minerals exported totalled £1,495,112, a record for the industry and more than half of the total value of the Island's exports in that year. Owing to loss of markets there was severe depression in mining during the war years, and several mines ceased production; mineral exports fell to £172,828 in 1942. After the war a rapid recovery took place, and despite a four months' strike in 1948 at the largest cupriferous pyrites mine, mineral exports rose from £712,532 in 1946 to £1,884,178 in 1947 and £2,592,601 in 1948. In 1949 mineral exports reached the new record figure of £3,675,990 representing 45 per cent of the value of all exports in that year and in 1950 a further rise took place to £5,451,021 or 49 per cent of total exports. Mineral exports in 1951 rose to £7m. Average daily numbers employed were 3,366 in 1946, 4,428 in 1947, 4,077 in 1948, 5,330 in 1949, and 5,868 in 1950.

There were in force at the end of 1950 eleven mining leases and six mining licences covering a total area of 152 square miles, as well as 80 prospecting permits covering approximately 160 square miles.

Copper and Pyrites

Copper is said to derive its name from Cyprus, where it was mined from earliest times, and especially by the Romans who termed it " aes cyprium " (cyprian metal); this it is said was later corrupted into cuprum, whence the English word copper, French cuivre and German Kupfer. Attempts to exploit the mineral were resumed in Cyprus in the last quarter of the nineteenth century, but without significant success until the early 1920s when exports began from the Skouriotissa mine of the Cyprus Mines Corporation. This mine, which was on the site of Roman workings, has since gone out of production and remains so at the present time, as also are the Apliki and the Mathiati mines of the same company although drilling is being carried on at Apliki. Currently operating, and the Island's chief producer, is the same company's Mavrovouni mine from which, as formerly from Skouriotissa, the cupriferous pyrites ore is railed to a treatment plant nearby on the coast, at Xeros on Morphou Bay. Here the ore is crushed and otherwise processed before shipment to yield copper concentrates (of an average grade of 18-19 per cent Cu.) and flotation pyrites (of an average grade of approximately 50 per cent S); since 1948 cement copper has also been produced (of an average grade of 50-60 per cent Cu.), and in 1949 a small quantity of untreated ore was shipped (of an average grade of 2·5 per cent Cu. and 48·2 per cent S). An acid leaching plant, which is expected to increase the recovery of copper by 10 per cent. or more, has just been constructed and commenced operation during 1951.

Although the small proportion of other minerals which it may contain—such as copper, nickel, silver and/or gold—may frequently be the means of making its extraction commercially profitable, pyrite (pyrites or iron pyrites) is exploited very largely for its ***sulphur content*** and especially for the manufacture of sulphuric acid of which it has become one of the chief raw materials. Flotation pyrites derived at the Xeros plant from the Mavrovouni ores comprise a large proportion, between 45 and 70 per cent in the post-war period, of all exports of pyrites from Cyprus. Virtually the whole of the remainder is derived from the Kalavasos mine of the Hellenic Mining Corporation. The Kalavasos ore is evacuated without pre-treatment other than crushing and washing via Vasilikos on the south coast between Larnaca and Limassol. Transport to Vasilikos is by the company's private railway, and loading is carried on by means of a ropeway extending 1,640 feet out to sea. Exports from Kalavasos were of an average grade of 46·4 per cent. S., and 1·3 per cent Cu. in 1949, and 47·3 per cent S. and 1·2 per cent Cu. in 1950. Deposits in the Sha area of the Hellenic Mining Company's lease

MINERAL PRODUCTION, 1938 & 1946-1950

Mineral	1938		1946		1947		1948		1949		1950	
	Quantity (tons)	*Value (£)*	*Quantity (tons)*	*Value (£)*	*Quantity (tons)*	*Value (£)*	*Quantity (tons)*	*Value (£)*	*Quantity (tons)*	*Value (£)*	*Quantity (tons)*	*Value (£)*
*Cement copper	—	—	—	—	—	—	1,550	81,562	2,010	96,970	1,334	104,800
*Copper concentrates	146,550	768,247	400	3,200	66,710	977,335	79,100	1,256,500	111,390	1,731,142	103,030	2,120,200
*Cupreous pyrites			—	—	—	—	—	—	77,820	287,153	111,210	612,300
Iron pyrites	515,303	488,593	256,203	372,406	352,946	557,776	369,925	499,468	401,768	853,549	533,501	1,507,442
Asbestos	5,578	88,291	6,606	182,104	7,021	260,375	7,980	374,940	11,098	520,795	15,471	727,912
Chrome ore or concentrates ..	7,442	19,736	1,140	6,600	5,200	29,000	6,790	40,890	14,640	115,120	18,150	215,260
Gypsum : raw	6,046	1,488	10,850	14,642	5,800	7,400	13,992	13,212	16,951	12,531	53,094	31,428
calcined	3,529	2,258	3,642	15,316	1,601	5,637	4,330	14,102	7,030	2,649	9,465	26,040
Terra Umbra	4,097	11,809	7,368	52,477	5,670	44,587	4,882	45,158	3,625	34,275	7,065	63,466
Yellow Ochre	—	—	220	1,469	201	865	52	641	60	715	3	39
Terre Verte	5	35	38	797	29	458	5	89	8	197	16	319
Magnesite	..	..	3	36	30	375	1	17	20	200	20	205
Other minerals		114,655		63,485		370		266,022		694		41,610(1)
		1,495,112		712,532		1,884,178		2,592,601		3,675,990		5,451,021

(*) Estimated copper content of cement copper, copper concentrates and cupreous pyrites in tons was 70 ; 12,481 ; 15,486 ; 23,558 ; 22,933 for years 1946-1950 inclusive.

(1) Includes gold-silver precipitate £40,872.

were in 1949 prepared for exploitation by open-cast methods. The company's Mitsero Mine is not in active operation but geophysical prospecting is being carried out in the area.

At the Limni cupriferous pyrites deposits, on the site of ancient workings at Polis, near the western extremity of the Island, intensive prospecting was carried on after the early 1880's, but commercial exploitation was not found possible until resort was had in 1929 to open-cast mining methods; after interruption in the mid 1930's the mine produced again in 1937 and 1938 and intermittently thereafter to 1945. Drilling was recommenced in 1947 by the Cyprus Sulphur and Copper Company, which is now a fully owned subsidiary of the Esperanza Copper and Sulphur Company; the production stage is still unattained, but deposits of over 5·7 m. tons have been proved, valued at some £20 m., at the prices ruling in early 1951. Attention is now being concentrated in the first place on production from the Kinousa area of the concession, where reserves now total over 5,700,000 tons of ore, containing sulphur (about 45 per cent.), copper (2 per cent.), zinc (3 per cent. to 4 per cent.), gold and silver. The Limni mine is connected by ropeway to a treatment plant near the coast.

Asbestos

Asbestos is found in Cyprus in the two main forms of amphibole asbestos and serpentine asbestos (chrysotile); the latter variety, which has the shorter fibre, is that principally exploited, the former being of a kind not well adapted for use in manufacture. Chrysotile asbestos is found at Amiandos on Troodos about 5,000 feet above sea level; it is thought that the mineral may have been quarried there in classical times. In the modern period commercial demand was at first for a fibre of longer staple than the Amiandos fibre possesses, and it was not until the trade found uses for shorter fibres that the Cyprus reserves of asbestos began to be seriously exploited during the first decade of this century. The quarries are extensive, but the reserves are of very great extent and their exhaustion in the foreseeable future, even at intensive rates of extraction, is not expected. Located above the mid-winter snow line, the quarries are normally in operation only half the year, from April to September. After quarrying, the rock is converted into fibre in the crushing mills, of which eight are in operation, and is graded into "standard," "shorts," and "fines"; it is then transported to the south coast near Limassol, a distance of roughly nineteen miles, by the Company's ropeway. In the post-war period, as a result of labour shortage, more mechanical excavators and locomotives have been introduced. Average daily numbers employed, which were 1,510 in 1938 and 665 in 1946, rose to 954 in 1947, 1,048 in 1948, 1,548 in 1949 and 1,833 in 1950. This increased mechanisation and a steadily improving labour supply have combined to bring about a rapid rise in production since early 1947. During these post-war years the longer grades of fibre have continued in good demand, but some difficulty was experienced in marketing the shortest grades; demand for all grades was heavy during 1950. The concession was operated for some years prior to 1948 by the Tunnel Asbestos Cement Company, Limited, but in that year the lease was transferred to a group of associated companies under the title of the Cyprus Asbestos Mines Limited. During 1948 the Company erected a small plant to manufacture asbestos cement sheets for local sale; during 1950 this was replaced by a larger plant which commenced production in 1951.

Chromite

Chromite is mined by the Cyprus Chrome Company, Limited, at a site on the northern slopes of Mount Olympus (Troodos) near to the summit at about 6,000 feet above sea level. The ore is conveyed by aerial ropeway to a plant in the foothills where it is sorted; the low grade ore is concentrated, the high grade ore exported in lump form. Owing to severe climatic conditions, the mine is usually able to operate only for about eight months of the year, but in 1949 and 1950 operations were continued almost throughout, though on a limited scale during the most severe winter periods. In the earlier post-war years effort was devoted chiefly to development and labour shortage gave rise to production difficulties; the position became easier in 1949 and output and exports expanded considerably. Ore reserves are being rapidly depleted and the life of the mine would be very limited in the absence of development beyond the present depth of 300 feet; during 1950, under the stimulus of favourable markets, preparations were being made to extend the main shaft to 400 feet and so open up new levels for exploitation.

Umber

Umber (terra umbra) occurs in Cyprus at the contacts between Idalian marls and igneous rocks, in a zone which is some 10 to 15 feet thick and of very considerable extent. At present rates of extraction reserves are virtually inexhaustible. The mineral is used as a pigment; that of Cyprus ranks among the best natural umbers. In colour it is generally a rich brown, but lighter and darker shades are also found. It is exported in its crude state as "raw umber" and also as "burnt umber," crushed, calcined and blended into various shades. The mineral is produced from surface and shallow underground workings, principally in the Troulli area of Larnaca district where the best qualities are found, and in a smaller area to the north east of Limassol. The main port of shipment is Larnaca. The Umber Corporation of Larnaca Limited is the Island's chief producer; smaller quantities are exported by the Limassol Chemical Products Company, Limited. Development during the war years of alternative sources of supply and of synthetic substitutes limited export outlets for umber; production was adversely affected and after a post-war maximum was attained in 1946 with 7,368 tons valued at £52,476, exports fell year by year to 1949. Following devaluation, however, the position improved and in 1950 exports rose sharply to 7,068 tons valued at £63,466.

Gypsum

Gypsum is found in Cyprus in the Idalian strata in the form of crystallised selenite, as massive rock gypsum and alabaster and also in a laminated form. The mineral is plentiful, widely distributed and of good quality; nevertheless, high working costs and freight rates and the comparative lack of shipping facilities have impaired the ability of the industry to compete in world markets, and have hitherto restricted development. Gypsum is quarried for export both in its crude state and calcined as plaster of paris. In its laminated form the mineral is quarried for use on the Island as interior paving slabs ("marmaras") for floors, stairs, sills, shelves, etc., and is widely employed in houses and buildings of all kinds and classes. Some of the alabaster is used for decorative purposes. Only favourably situated deposits are exploited; of these the more important ones are to the east and west of Limassol in the south coastal strip, and in an area lying on the more northerly part of Famagusta Bay. Exports fell to an insignificant amount during the war years, but rose again from 1944 onwards except for a fall in 1947, which proved only temporary. Progress towards establishing the industry on a firmer basis was made with the formation in 1949 of the Gypsum and Plasterboard Company, Limited, a subsidiary of the Hellenic Mining Corporation. This Company, which has strong financial resources and modern transportation and ship-loading facilities, has erected a stucco and plasterboard factory and production commenced in 1951. A factory near Limassol brought into production in 1948 by an affiliated concern of the Limassol Chemical Products Company, Limited, has been largely responsible for the subsequent increased output and export of plaster of paris.

Other Minerals

Occurrences of brown iron ore of a rich yellow or brown colour are exploited as a source of *ochre* ; production and exports are mainly from Skouriotissa and are small. *Terre-verte*, a blue-green, chlorite-like substance of value as a pigment, is found in some parts of the Island among the volcanic rocks. The material is not mined systematically, but is collected by individuals and sold to agents for export on a small scale.

Magnesite, to the total extent of about 500 tons, was mined and exported during 1923 and 1924, from the Akamas peninsula ; magnesite mining was subsequently discontinued and current production is insignificant.

Deposits occur at several places on the lower igneous ground—i.e., on the edges of the Troodos massif—of a *clay* produced from weathering of the igneous rocks, which is used in the manufacture of earthenware, rough pottery, roofing tiles, etc. A plastic clay found in pockets in the rocks is used in the villages as a roofing material on a foundation of brushwood. The Trypanean *limestones* of the Kyrenian range are quarried at several places and burned to obtain lime of good quality, as also are the less suitable Idalian limestones. In the rocks of the Trypanean series, also, occur ornamental *marbles* which are reported to be of excellent quality and appear to have been extensively worked in early times ; they are exploited at present only on a small scale for local use. From the Idalian series a soft grey *freestone* is quarried which is widely used through the Island for all kinds of domestic vessels and stoneware and which, being fire resistant, is cut into fire-bricks for grates, ovens, etc.

Magnetite, specular *hematite*, *manganese*, *zinc* and *alum* have all been found in Cyprus, but not as yet in a form and quantity to warrant commercial exploitation. The Iraq Petroleum Company, which had held an *oil* exploration licence for a number of years, completed its investigations towards the end of 1948 and in view of unfavourable findings decided to abandon further operations.

Manufactures

(See also the occupational/industrial analysis of the working population, given in the section " Population," above.)

Almost the only large industrial enterprises in Cyprus are the mines. There are, however, many small undertakings with a substantial aggregate output.

In 1938 there were three modern wineries, with a throughput of about 5,000 tons of grapes per annum ; by 1948 the number had increased to 15, purchasing about 13,750 tons of grapes yearly. During the same period the number of brandy distilleries rose from 16 to 30. Output in 1951 was estimated at 3,000,000 gallons of wine, 48,000 gallons of commandaria, 4,000 tons of raisins and 200,000 to 250,000 proof gallons of spirits, including brandy. The industry has been suffering from an inflated cost structure, a relic of war-time conditions, and from the loss of overseas markets.

Eight tobacco factories in 1951 produced 350 tons of cigarette from imported and locally-grown yellow-leaf tobacco, almost entirely for the local market.

There were two button factories in 1938, one of which has since closed down. The raw material which is normally used is imported dom-nut ; imported mother-of-pearl is used to a smaller extent. One factory produces artificial teeth for export chiefly to the United Kingdom. Exports of buttons and teeth, which comprise the whole of production, are shown in the section on external trade, see page 63.

A number of small concerns make cement and earthenware bricks and tiles, and one produces decorative pottery.

Two tanneries treat imported hides and manufacture sole leather. A village tanning industry treats local skins for linings. Three undertakings use machinery for the manufacture of footwear, and there is an island-wide craft industry producing hand-made boots and shoes for the domestic market.

There are 16 soap factories which, in 1951, produced 1,200 tons of laundry soap. Three factories make pyrene-olive-oil for soap making.

Some 30 small factories manufacture cheese, and have a combined annual production of nearly 500 tons ; exports in 1951 totalled 351 tons valued at £122,000. There are six macaroni factories which supply the local market ; the industry is expanding. Other food manufacturing industries include a fruit canning factory and numerous olive presses.

There are two cotton spinning mills, one at Nicosia until recently owned by Government and the other at Famagusta belonging to a private firm. The former was established in 1946 to meet a war-time shortage of textiles. During 1951 yarn worth about £111,000 was exported. A power driven mill weaves cotton goods for local consumption and there are also a woollen goods factory and a hosiery factory.

A filature for reeling the silk produced on the Island was opened at Yeroskipos near Paphos in 1926, but closed in 1934 following the world slump. The filature opened again during the war, the entire output being taken after 1942 by the U.K. Ministry of Supply. A silk weaving factory established by the filature commenced working in 1949 and produced 60,000 yards of silk cloth in 1950, of which 8,000 yards valued at £2,100 were exported.

Six undertakings manufacture shoe polish for local consumption. Five undertakings make perfumes for home use and export. One factory makes gum from carob kernels ; the entire output of about 200 tons a year is exported. A nail factory was opened in 1951.

A small plant to manufacture asbestos cement sheets for local sale was erected by Cyprus Asbestos Mines Limited during 1948, and in 1949 the Gypsum and Plasterboard Company Limited was formed with the establishment of a stucco and plasterboard factory as one of its chief objects. A factory to manufacture plaster of paris has been erected in the post-war period near Limassol by the Limassol Chemical Products Company, and has already begun to make a substantial contribution to exports.

Most of the war-time restrictions having been lifted there is now little Government control of industry. Most industries and trades, however, have to register annually under the Trades and Industries (Regulations) Laws, and are subject to factory inspection.

Village Industries

A fairly large number of small village industries exist producing a wide range of goods.

The most important is lace-making practised chiefly in two villages of Larnaca district, where nearly all the women are engaged in the craft. The lace, known as " Lefkaritika," is very fine and is all hand-made. Before the war it was exported mainly to the United Kingdom, Germany and Scandinavia ; it now goes to the United Kingdom and U.S.A.

Zivania (raw spirit containing about 49 degrees alcohol), wine, raisins, soutzoukko (a sweetmeat made from grape-sugar), ham and sausages are manufactured in practically all the hill villages and olive oil, halloumi (a kind of cheese made from goat and sheep's milk) and " trahana " (coarse wheat paste for soups) are widely produced. In certain areas locally produced tomatoes are pulped into paste which is tinned for local consumption and export.

" Locoumia " (Turkish delight) is manufactured in a small number of villages in Paphos, Limassol and Larnaca districts, for sale within the Island.

The inhabitants of some 10 villages in Larnaca and Famagusta capture and preserve in vinegar a species of black-cap warbler, locally named the beccafico, which arrives in considerable numbers in migration. The sale of these birds, which are considered a delicacy, brings some of these villages a considerable annual income.

Other village industries include the rearing of silk-worms and production of cocoons, the manufacture of cotton, woollen and silk piece goods ; the making of baskets, hampers, and mats from locally-grown reeds ; hand-made pottery ; rope, bricks and mud-bricks ;

brooms, wooden ploughs, yokes, threshing boards, troughs and chairs. The burning of lime, gypsum, and charcoal is also practised extensively in a number of villages.

Other Economic Activities

Tourism

Tourist traffic is an important feature of the Island's economy.

A de luxe hotel recently opened in Nicosia aims to provide a service comparable with that available in continental capitals, while accommodation in first-class hotels is comparable with that in the best hotels elsewhere in the Middle East, and second-class hotels also provide a fair degree of comfort. Hotels open to visitors during 1951 were as follows :—

HOTELS, 1951

Standard	*Number*	*Beds*
De Luxe	2	365
1st Class	13	830
2nd „	24	962
3rd „	20	495
4th „	32	653
5th „	4	28
Camp Hotels	6	383
Total ..	101	3,716

The Government of Cyprus imposes Hotel Regulations for the protection and assistance of visitors, and tariffs are fixed by agreement between Government and the hotel owners concerned.

Under the Villages (Administration and Improvement) Law of 1950, improvements are being stimulated, especially in the lighting and maintenance of streets and the provision of water and sanitary services, particularly of those villages which are the foci of the tourist trade.

A Director of Tourism was appointed in October 1949 ; information bureaux have been opened, and expansion of the tourist trade is being stimulated by all available means. Some expansion is anticipated, in particular, from increasing use of the Island as a place of call for winter cruises in the Mediterranean. The Island is a popular resort for oil workers from the Persian Gulf area.

The value of the tourist traffic is estimated to have been some £100,000 annually before the war. Visitors in 1951 numbered more than 27,000 from 40 countries, and direct tourist revenue was estimated at over £1 million.

Distributive Trade

As practically all the Island's requirements of manufactured goods have to be imported, a considerable number of firms are engaged in the distributive trades. Many are commission agents representing overseas manufacturers ; a fair number are sole importers of certain types of goods which they sell on their own account both wholesale and retail. Some co-operative societies also carry on a retail trade.

Local produce for home consumption is brought by the peasants to the markets and retail shops in the towns for disposal.

Professions

The numbers engaged in the main professions, in the most recent census year, 1946, are shown in the chapter on population, page 28.

Co-operative Movement

The first Co-operative (Credit) Societies Law in Cyprus was enacted in 1914, but by 1925 there were only 29 societies in existence. In that year the Agricultural Bank of Cyprus was founded to make advances to agriculturists. Mortgage loans were issued on the security of immovable property and co-operative credit societies of unlimited liability were used to safeguard their repayment. The number of societies rose to 49 by 1926, 268 by 1928, and 324 by 1934. The activities of the societies were almost entirely confined to the issue of long-term loans and they were looked upon as mere lending and collecting agents of the Agricultural Bank. The underlying principle of co-operation—self-help and mutual help—was absent, and most of the societies were co-operative in name only.

In 1935-36 reorganisation was undertaken. Societies were encouraged to accept deposits and to give short-term credit on personal sureties of members or on crop charges. Many societies were found to be moribund and liquidations reduced the number. Since reorganisation the movement has progressed continuously as the following figures show :

GROWTH OF CO-OPERATIVE MOVEMENT, 1937-1950

	1937	1944	1948	1949	1950
Number of societies ..	262	382	597	610	622
Number of members ..	19,737	51,868	93,892	96,737	102,056
Savings deposits ..	£22,000	£182,000	£320,780	£325,870	£283,180
Total deposits	£50,000	£852,000	£1,258,819	£1,330,162	£1,302,700
Reserve funds	£34,000	£130,000	£416,597	£304,981	...

... not audited.

The following table gives an overall picture of co-operative activity in Cyprus as at 31st December, 1950 :

CO-OPERATIVE SOCIETIES, 31ST DECEMBER, 1950

	Societies	*Members*	*Deposits*	*Share Capital* (1949)	*Reserve Fund* (1949)
	No.	*No.*	£	£	£
Thrift and Credit Societies—					
(*a*) With unlimited liability	407	60,558	933,240	—	210,710
(*b*) With limited liability(1)	39	9,638	348,503	9,652	32,513
Co-operative Central Bank	1	403	518,666	2,785	190,023
Consumers' and Supply Societies	116	22,707	13,071	35,981	46,162
Producers' Marketing and Processing Societies	35	7,640	7,886	59,572	12,971
Other Societies	24	1,110	—	14,175	2,625
	622	102,056	1,302,700(2)	122,165	495,004

(1) I.e., Co-operative Savings Banks.

(2) Excluding deposits with Co-operative Central Bank.

The credit societies form the vanguard of the movement; their basic object is to safeguard farmers from uncontrolled indebtedness by providing agricultural credit on reasonable terms. Required by law to have unlimited liability, these societies have no share capital, but accept deposits from members and issue short and long-term loans to members. They also act as media for the supply to farmers of their agricultural requirements and for the collective sale of produce. In one or two cases tractors and other farm machinery are rented to members.

Co-operative thrift and credit societies (savings banks) having limited liability exist in the towns and mining areas, catering mainly for wage and salary earners. A school savings scheme was initiated in March 1950, jointly with the Department of Education; by the end of 1951 the scheme had extended to 448 school savings banks with 36,000 pass books and average weekly collections of £1,600.

The Co-operative Central Bank was founded in 1937 and started operations in 1938 with 71 societies as members. Since that date the number of member-societies has increased steadily to the figure of 410 at the end of 1951. In 1949 the Bank adopted a stricter loans policy, especially for those societies in arrears and the volume of both short and medium-term loans issued fell very substantially. Advances are made against vine products, carobs, and other products pending realisation of their value, and loans are made to finance specific agricultural requirements such as the purchase of fertilizers, seed, animals and fodder, the expenses of cultivation and harvest, and improvements to property. During 1951 the Bank purchased and sold to societies, fertilizers, sulphur, and seed potatoes valued at £393,000. It also acted as financing agent for the Government for the purchase through societies of wheat, barley and zivania.

Consumers' co-operatives developed slowly at first and there were only 18 societies at the end of 1945 with a membership of 3,558. By the end of 1950 the number had risen to 114, with a membership of 22,487. Gross profits range from five per cent to 12 per cent and net profits from two per cent to five per cent (1950). All stores under their bye-laws put 25 per cent to reserve, distribute 25 per cent as dividend (not exceeding five per cent) on share capital, and distribute 25 per cent as bonus on patronage; the remaining 25 per cent is applied in accordance with the wishes of the annual general meeting. Consumers' co-operatives in Cyprus deal in groceries, clothing, hardware, footwear, and implements. The societies' bye-laws require that sales should be for cash but discretionary power is allowed to grant credit not exceeding £3 per member. Administration is generally good, and better in the villages than in the towns. Owing to generally inappropriate conditions of trade on the Island at present, and to lack of the necessary capital, no serious approach has yet been made to the formation of a co-operative wholesale society. Two " supply " societies exist. The Bicycle Repairers' Supply Society with 63 members supplied only £382 worth of goods in 1949, but £1,336 in 1950. The Famagusta Tailors' Supply Society is more active and in 1949 supplied to members tailors' requisites to the value of £13,943; turnover in 1950 fell to £11,700.

There were operating in 1950 two producers' co-operatives: the Kondea Weavers' Society, membership of which is confined to women, and the Silkworm Egg Producers' Society, with a membership of 24, comprising all producers except one. Both were in a rather weak position, the former for lack of a firm domestic market, the latter for want of export outlets. A Marble and Mosaic Workers' Society, whose turnover in 1948 exceeded £26,000, and which had three workshops in Nicosia and one in Famagusta, but whose adherence to co-operative principles remained somewhat doubtful, was wound up during 1949. The Kambos Wood Cutters' Society formed in 1946 was never a success and went into liquidation in 1948 as also did the Limassol Milk Producers' Society which operated with little success from February to December, 1947. Eight primary produce marketing societies are in existence, handling carobs, lemons, cherries, apricots and other fruit and vegetables, in varying quantities, and generally with a moderate degree of success; markets are chiefly abroad, but the Pervolia Vegetable Growers' Society, for exmple, disposes of some 90 per cent of the production of the village, mainly to the town markets of Larnaca and Nicosia.

There are eight marketing unions: five for carobs, two for potatoes, and one—by far the largest—for vine products. The five carob marketing unions now operate jointly in an unofficial federation; member societies number 151 in all and the share capital totals £3,600. The five carob marketing unions, together with two carob marketing societies, pooled 53,500 cantars of carobs in 1950 compared with 37,400 cantars in 1949. There is one potato marketing union for Famagusta and Larnaca districts and another for Nicosia; despite the competition of the Cyprus Farmers' Union (P.E.K.) marketing organisation, these unions continue to expand both in society membership and share capital, and in the volume of potatoes sold (10,818 tons in 1950, compared with 8,044 tons in the previous year and 5,906 tons in 1948). The Vine Products Marketing Union (S.O.D.A.P.) registered in 1946 decided in late 1947 to extend its activities beyond dealings in zivania and raisins, to cover fresh grapes and the manufacture of wine. It was decided at the same time to amend the bye-laws to permit acceptance of individual producers directly as members. In 1950 the Union had 56 member-societies and 3,805 individual members, and at 31st August, 1950, the subscribed share capital was £66,055, and paid-up share capital £39,545. During the adverse year 1949 the Union bought limited quantities of grapes from growers and produced 590 tons of wine; sales were mostly on the local market. The Union also acted as agent for the Government in its policy of assistance to growers by the purchase of zivania and raisins. S.O.D.A.P. ran into serious financial difficulties in the course of 1950, and was granted a long-term loan by Government of £187,500 to enable it to pay off debts to numerous producers for grapes, etc., already delivered, and to permit completion of its factory.

The processing societies, which number seventeen in all, comprise eight wine-making societies, eight olive pressing societies, and one wheat-and-barley milling and cotton-ginning society. Only three of the wine-making societies were in operation during 1950. Three olive-pressing societies were operating in 1947, four more began operations during 1948, and another in 1949; rapid expansion has taken place over the period not only in the total quantity of olives pressed but also in the quantities handled by the original three societies. The volume of cereals and of cotton handled by the Rizokarpaso Milling Society fell in 1948 but rose again in 1949 to roughly the 1947 level; membership continued to fall slightly. The Lefkoniko society, which began operations in 1948, dealt with an increased quantity of wheat and cotton in 1949, but with a smaller quantity of barley; although membership and share capital rose, the society was meeting with some financial difficulties during its second year and cannot yet be said to be firmly established.

Other societies include seven transport societies having 12 vehicles, three land-leasing and two land-purchasing societies, two co-operative farming societies, an irrigation society, and five societies for the common use of agricultural machinery in the main tasks of ploughing, reaping and threshing. A tree planting society at Pera remained dormant throughout 1949 as also did the Pera agricultural machinery society. The credit societies at Lefkoniko and Vasili also rent tractors and other farm machinery to their members.

Twenty new societies were registered during 1949, including six credit societies and ten consumer societies; in 1948 there were 51 new registrations of which 20 were credit societies and 20 consumer societies; total new registrations in 1947 were 70, including 18 credit and 35 consumers' societies. A number of liquidations occurred during the same period. During 1950 17 new societies were registered and 24 in 1951.

Co-operative societies are exempt from the payment of income tax and from certain stamp duties. The main assistance which they receive from Government, however, is in the form of the advice and guidance of officers of the Department of Co-operation who also supervise the audit of their accounts. Besides maintaining the Department, Government contributes to a fund from which the auditors are paid.

Employment and Labour Supply

Statistics relating to numbers employed in the principal occupational and/or industrial groupings at the 1946 census are given in the section on Population, above. Women workers, of whom roughly a third are full-time workers, constitute almost one-fifth of the gainfully occupied civil population. Their employment underground in mines, or on nightwork is prohibited by law, and administrative instructions have been issued to restrict their employment by Government in heavy work such as road construction, to the lighter forms of duties. Of the gainfully occupied civil population, some three per cent is composed of central and local government staffs, 43 per cent are self-employed (including employers of labour), and 54 per cent are paid employees in private industry.

Except in certain village occupations, notably lace-making, there is an almost complete lack of craft tradition. In consequence the standard of workmanship is not high and the supply of really skilled tradesmen, with the possible exception of masons and to a smaller extent carpenters, is very limited; apprenticeship is almost unknown. Unskilled and semi-skilled labour is relatively abundant. The mining companies maintain a cadre of professional and skilled employees, and all but the highly technical and managerial staff are recruited locally. Many tradesmen have been trained in Government workshops and advantage should accrue from the Apprentices Training Centre established in 1945.

Supply of and demand for labour is subject to marked local variations. A notably depressed area is Larnaca where both agriculture and industry show a tendency towards a long-term decline. Depressed agricultural areas include the Tillyria region in the north-west and some villages on the southern slopes of the Kyrenia range.

Statistics of employment and unemployment are incomplete, and do not support firm conclusions. It appears, however, that the number of totally unemployed in the Island during 1949 did not rise above 5,000, or approximately three per cent of the estimated occupied population. 1950 was a year of industrial prosperity and the harvest was good. Demand for labour was high, in consequence, and especially strong in mining and building. Employment prospects were good as 1951 opened, with a Government works programme for the year of over £2,000,000, including £1,000,000 for the Central Electrification Scheme; £700,000 was earmarked for spending on improvement of water supplies, and military cantonments at Dhekelia were expected to absorb expenditure of several million pounds over a number of years. The programme of public works is arranged as far as possible to provide the maximum relief of unemployment at the places and times where the need is greatest.

The Labour Department was established in 1941, and consisted at the beginning of 1951 of a Commissioner of Labour and an Assistant Commissioner, six Inspectors, three Labour Exchange Managers and five Assistant Managers, ten Clerks and four Messengers. Duties of the Department include inspection of factories and enforcement of labour legislation relating to standards of hygiene, safety precautions, hours of work, employment of women and of children, minimum wages, etc., as well as inquiries into industrial accidents, employment exchange work, mediation in trade disputes, and general matters connected with labour relations. The Department collects information and statistics relating to numbers employed and unemployed, wages, hours of work, and the cost of living; the official index of retail prices is compiled by the Department.

Employment exchanges were established at Nicosia and Limassol in April and June, 1945 and at Larnaca in July, 1949. The early indifference or even hostility of the trade unions appears to have evaporated, and the number of registrations at the exchanges has increased. Linked with each exchange are three advisory committees, consisting of equal numbers of representatives of employers and workers. The total number of registrations at all exchanges in 1949 was 28,785 and placings numbered 17,631 or 61 per cent. A further exchange was opened in April, 1950 at Famagusta. Registrations at the four exchanges in 1950 numbered 58,517 and placings were 19,792 or 51 per cent.

Casual labour has been virtually abolished in the port of Limassol by the establishment of a port labour scheme assuring regular stevedores and porters of a reasonable livelihood. Registration in the dock labour pool does not carry any guaranteed wage but does ensure fair continuity of employment.

Hours of work are shorter than formerly and in only a few cases is the normal working week longer than 48 hours; the 44-hour week has been made general in Government employment and is being adopted by an increasing number of private employers. A half day is usually worked on Saturdays. Notable exceptions are private domestic service where between 70 and 90 hours weekly may be worked, and the catering industry where the normal week is one of 48 to 58 hours. In agriculture, in transport, and in baking and the manufacture of macaroni, hours are on average longer than elsewhere. The normal working week in the mines is of 48 hours.

Wage rates vary widely from industry to industry and according to the skill of the individuals concerned; piece rates are increasingly common and actual earnings may therefore be higher than the basic rates in force which are usually minima. Wage rates fell somewhat during 1949; in most male occupations, for work requiring a fair degree of skill the wage during 1950 was about nine to 12 shillings per day. In the more highly paid employments—for example printing, building, electricity, plumbing and baking—skilled workers received from 12 to 18 shillings daily. The rates for unskilled workers were less defined but substantially lower, at about five to 10 shillings per day. Women's rates were markedly lower than the corresponding rates for men, in general, and were especially depressed in silk weaving and in minor service employments—e.g., laundresses and chambermaids, where the rates were three to four shillings daily.

In non-Government clerical employments, for a working week of 40 to 44 hours, men received on engagement pay at the rate of £9 to £15 per month and women £8 to £12 per month. Rates of pay for skilled shorthand-typists were about £20 to £30 per month.

The data on p. 51 relating to actual earnings and hours of work for certain of the major industrial and occupational groups, are derived from enquiries made in November 1949 and December 1950.

Registration of Trade Unions was first begun towards the end of 1942, and at the 1st January, 1952, there were 110 Unions having a total membership of over 12,600. Only one union had a membership of over 1,000, while 61 unions each had fewer than 50 members; the details are as follows:

Membership Class	*Number of Trade Unions*	*Total Membership*
Under 50 ..	61	1,587
51 to 250 ..	39	4,265
250 to 1,000 ..	9	2,983
Over 1,000 ..	1	3,800
	110	12,635

EARNINGS AND HOURS OF WORK, 1949 AND 1950

Industry, Trade and/or Occupation	*W.E.* 26 *November*, 1949			*W.E.* 16 *December*, 1950		
	Wage-Earners Covered	*Average Earnings*	*Average Hours Worked*	*Wage-Earners Covered*	*Average Earnings*	*Average Hours Worked*
Government :						
Public Works		£ *s.* *d.*			£ *s.* *d.*	
Men, skilled	817	3 3 7½	40·2	885	3 0 4	39·8
„ unskilled	618	1 14 4	35·9	981	1 13 7½	34·3
Women	60	1 5 0	38·9	105	1 4 8	35·2
Forests						
Men, skilled	250	1 18 1	31·3	275	2 2 2	35·7
„ unskilled	240	1 3 1	30·1	87	1 12 5½	36·3
Women	179	1 3 1	30·1	178	1 6 6	39·1
Private Enterprise :						
Building						
Masons	108	4 4 1½	40·6	168	4 3 7	41·4
Carpenters	36	4 9 5½	43·5	65	3 8 5	38·9
Masons' Labourers	158	3 3 6	43·2	276	2 16 2½	40·5
Mining						
Men, underground	1,035	3 18 6	47·4	934	3 15 7½	49·5
„ surface	772	2 15 7	50·1	1,570	4 4 8	60·7
Women	289	1 18 2	46·8	636	3 4 8	54·1
Paper and Printing						
Men	143	3 14 4	43·8	206	3 14 5	43·4
Catering						
Cooks	16	3 9 1	57·9	31	4 2 3	55·6
Waiters	47	2 11 2½	52·3	86	2 18 5½	57·8
Women	20	1 12 5	51·4	48	2 1 1	57·3
Food						
Bakers	73	4 13 1	49·7	78	4 10 7	50·5
Tobacco						
Men	30	4 0 8½	46·0	54	3 16 3	45·1
Women	155	1 10 1	45·4	222	1 9 4	44·8
Clerical Workers						
All(1)	1,349	2 16 0	44	1,500	3 0 0	44

(1) Estimated in 1950.

There are a number of unions with fewer than 20 members and some with fewer than 12. The unions are of all kinds, based on occupational and on industrial groupings ; some are Island-wide, many are purely local, and several are restricted to the employees of a single concern or plant. Only about 8 per cent of the working population is organised in trade unions, or about 12½ per cent if agricultural workers are excluded.

The trade unions are now organised in four federations. The largest of these is the " Old " group, forming the left-wing Pancyprian Labour Federation (P.L.F.), which is affiliated to the World Federation of Trade Unions ; membership of the P.L.F. was maintained at about 9,000 through 1950. The increasing preoccupation of the " Old " group with politics led to a split in 1943, when the " New " unions began to be formed. At the end of 1950 the " New " group were joined together as the right-wing Cyprus Workers' Confederation, with a membership of some 2,500, having fallen by about 1,000 during the year. The Cyprus Turkish Trade Union Federation maintained its membership of approximately 160 at the end of 1950, and the Famagusta Workers' Federation which remained distinct from the other groups, had some 500 members.

Not only employers but also the trade unions have hitherto shown indifference to industrial hygiene and welfare. Major exceptions are certain of the mines, two of which have well-equipped hospitals serving the miners and their families and associated with which are child welfare and similar services. At Mavrovouni there are large and up-to-date pithead baths, and the Mavrovouni child welfare service has an island-wide reputation. Many concerns have their own provident funds or other schemes of social insurance. Especially in the Limassol area where industrial development has made most progress, there is an increasing tendency on the part of employers to provide messrooms and canteens some of which serve cooked meals at moderate prices.

There is a seasonal movement of wage-earners from rural to urban and mining areas ; this consists mostly of landless labourers and of smallholders whose holdings do not provide full-time employment all the year round. A marked tendency also exists towards permanent settlement in the area of the three main towns : Nicosia and surrounding villages, Limassol, and Famagusta ; the movement appears most pronounced towards Famagusta. The port of Larnaca, between Famagusta and Limassol and nearer to Nicosia than either, appears in process of being squeezed out, its population having shown little or no increase in recent years.

There is no seasonal or other regular periodic influx or efflux of labour from or to overseas countries ; most emigration represents a permanent exodus of workers travelling as individuals. Although few return except for short visits or on retirement there is a regular inward flow of remittances and gift parcels.

Fuel and Power

Local fuel resources are very limited ; only wood fuel is produced and both oil and coal have to be imported. There are only a few small perennial streams in the Island, providing driving power for a small number of mills.

The largest existing electrical undertaking is the Nicosia Electric Co., Ltd., with a plant having a maximum load of 2,100 kw. and generating nearly 7 million units annually. Five of the largest municipalities operate their own electricity undertakings with diesel generating plants of from 150 kw. to 3,000 kw. capacity, and there are lighting installations in the smaller municipalities. Mining companies generate their own electric power for industrial purposes. The central electrification scheme now under way is described below in the section on Development.

III. FINANCE AND TRADE

Public Finance

Central Government. The following table summarises revenue and expenditure (including receipts and expenditure from the Colonial Development and Welfare Fund) from 1929.

REVENUE AND EXPENDITURE OF CYPRUS, 1929-1951

Year	*Revenue*	*Expenditure*	*Surplus*
	£	£	£
1929	757,117	715,342	41,775
1930	725,078	800,207	−75,129
1931	728,396	743,076	−14,680
1932	755,698	742,606	13,092
1933	747,559	696,923	50,636
1934	765,359	710,912	54,447
1935	868,723	824,078	44,645
1936	826,075	761,965	64,110
1937	967,960	825,038	142,922
1938	1,023,230	908,024	115,206
1939	1,013,280	1,021,943	−8,663
1940	951,485	1,145,882	−194,397
1941	1,101,336	1,367,633	−226,297
1942	1,759,031	1,751,183	7,848
1943	2,280,159	2,156,724	123,435
1944	3,489,554*	3,693,688	−204,134
1945	3,554,819*	3,525,410	29,409
1946	4,517,132	4,001,978†	515,154
1947	5,121,176	4,607,079†	514,097
1948	5,915,985	5,812,952†	103,033
1949‡	4,957,844	4,595,148†	362,696
1950	5,982,534	5,214,763†	767,771
1951	7,201,062	6,418,534†	782,528

* Including Grant-in-Aid.

† Including transfers to Development Reserve.

‡ Excluding Colonial Development and Welfare Grants received and expended. Development receipts and expenditure being now shown in a separate budget.

During the decade preceding the war, except in 1930 and 1931, the Colony's revenue exceeded expenditure. War-time conditions caused an abrupt change. The revenue was—and still is—largely dependent on import duties, and these fell away sharply owing to shipping difficulties and shortage of supplies. Thus although total revenue rose following the introduction of income tax in 1941 and increases in existing taxes, the increase failed to keep pace with the mounting expenditure entailed by wartime measures. The deficits were made good by grants-in-aid from His Majesty's Government. In 1945 imports were resumed on a large scale and the Colony's financial position improved; from 1946 on there were substantial surpluses. From these surpluses £1,320,000 had been put aside by the end of 1951 to be spent together with an allocation of £1,750,000 from His Majesty's Government from the Colonial Development and Welfare Fund, in the Island's Ten-Year Development Programme.

The General Revenue Balance amounted to £3,072,183 at the 31st December, 1951.

Revenue and expenditure are analysed in the following tables under the principal heads, for 1938 and 1948-50.

The outstanding public debt as at 31st December, 1951, was £5,204,991, of which £3,968,503 was funded debt and £1,236,488 was unfunded. Accumulated sinking funds on account of the funded debt amounted to £471,326. At the same date, the outstanding amount of loans made by the Colony was £2,980,715, of which £1,097,688 represented loans made to His Majesty's Government in the United Kingdom and £1,883,027 was in respect of loans to local authorities, etc., in Cyprus.

The total amount of advances at 31st December, 1951, was £3,910,530—i.e., £1,518,841 higher than a year previously. Advances for initial expenditure on the Central Electrification Scheme had increased by £676,611 to £1,118,623. Advances to the Supplies Department for purchases of commodities, etc., at £2,182,295 were £433,440 higher than a year before.

PRINCIPAL SOURCES OF REVENUE 1938 AND 1948-50

Head of Revenue	1938		1948		1949		1950	
	£	%	£	%	£	%	£	%
Customs :								
Import Duties	447,129	43·7	2,485,257	42·0	1,895,948	38·2	2,207,212	36·9
Other	58,273	5·7	247,162	4·2	157,473	3·2	197,010	3·3
Excise	144,580	14·1	823,502	13·9	832,838	16·8	913,254	15·3
Income Tax	—	—	967,440	16·4	883,041	17·8	1,193,070	19·9
Other Internal Taxes (1) ..	117,908	11·5	313,759	5·3	348,538	7·0	337,728	5·6
Licences	86,825	8·5	99,146	1·7	101,247	2·0	106,734	1·8
Fees of Court and Office (2)	40,396	4·0	232,003	3·9	192,316	3·9	197,805	3·3
Post Office	4,240	0·4	11,437	0·2	9,910	0·2	14,018	0·2
Railway	26,762	2·6	80,332	1·4	78,024	1·6	78,684	1·3
Forests	13,073	1·3	40,154	0·7	32,023	0·7	35,942	0·6
Rents and Royalties ..	27,314	2·7	35,435	0·6	38,529	0·8	56,335	0·9
Interest	35,490	3·5	214,336	3·6	140,282	2·8	148,133	2·5
Miscellaneous	9,468	0·9	274,773	4·7	240,236	4·8	493,248	8·2
Total Ordinary Revenue ..	1,011,459	98·8	5,824,735	98·5	4,950,405	99·8	5,979,122	99·9
Colonial Development and Welfare Grants (3) ..	11,096	1·1	90,162	1·5	—	—	—	—
Land Sales	676	0·1	1,088	0·0	7,439	0·2	3,363	0·1
Total Revenue	1,023,230	100·0	5,915,985	100·0	4,957,844	100·0	5,982,534	100·0

(1) Comprising animal taxes, immovable property taxes, immovable property registration fees, estate duty, stamp duties.

(2) Including fines and forfeitures, fees and charges for specific services, reimbursements, etc.

(3) Budgeted separately after 1948.

PATTERN OF EXPENDITURE 1938 AND 1948-50

Head of Expenditure	1938		1948		1949		1950	
	£	%	£	%	£	%	£	%
Public Debt Charges ..	39,130	4·3	124,632	2·1	124,306	2·7	101,240	1·9
Pensions and Gratuities ..	51,065	5·6	151,000	2·6	169,522	3·7	186,232	3·6
Defence	16,296	1·8	10,000	0·2	10,000	0·2	10,000	0·2
Police and Prisons	82,905	9·1	295,064	5·1	275,086	6·0	279,355	5·4
Judicial and Legal	29,297	3·2	52,992	0·9	51,129	1·1	53,735	1·0
Central Administration (4)..	166,127	18·3	491,375	8·5	502,378	10·9	553,907	10·6
Public Works :								
Department	20,933	2·3	70,135	1·2	66,780	1·5	65,441	1·3
Recurrent	65,507	7·2	237,730	4·1	287,178	6·3	304,056	5·8
Extraordinary	84,480	9·3	127,997	2·2	113,004	2·5	231,714	4·4
Supplies	—	—	87,849	1·5	88,282	1·9	..	..(8)
Transport	—	—		1·5	2,773	0·1	..	..(9)
Posts and Telegraphs ..	26,443	2·9	56,061	1·0	54,343	1·2	75,695	1·5
Railway	21,149	2·3	82,782	1·4	69,063	1·5	71,764	1·4
Labour	—	—	5,474	0·1	6,346	0·1	7,870	0·2
Co-operation	2,056	0·2	16,457	0·3	16,336	0·4	15,230	0·3
Agriculture (5)	41,986	4·6	122,879	2·1	122,052	2·2	140,595	2·7
Forests	28,120	3·1	101,763	1·7	92,583	2·0	91,430	1·8
Medical	61,942	6·8	218,905	3·8	212,587	4·6	26,322	4·2
Education	120,239	13·3	387,074	6·7	374,244	8·1	388,611	7·4
Antiquities	10,878	1·2	19,740	0·3	22,524	0·5	22,376	0·4
Cost of Living Allowance (6)	—	—	794,720	13·7	747,773	16·3	862,023	16·5
Commodity Subsidies ..	—	—	1,048,996	18·0	599,226	13·0	299,927	5·8
Loans and Advances ..	—	—	184,383	3·2	276,735	6·0	948,291	18·2
Miscellaneous (7)	36,635	4·0	117,365	2·0	110,908	2·4	88,949	1·7
Total Ordinary Expenditure	905,189	99·7	4,805,372	82·7	4,395,148	95·6	5,014,763	96·2
Development	2,835	0·3	1,007,580	17·3	200,000	4·4	200,000	3·8
Total Expenditure ..	908,024	100·0	5,812,952	100·0	4,595,148	100·0	5,214,763	100·0

(4) Includes H.E. the Governor, Consultative Assembly Administration, Audit, General Clerical Staff, Messengers, Secretariat, Treasury, Customs and Excise, Inland Revenue, Land Registration, Printing Office and London Office.
(5) Including Water Supply and Irrigation.
(6) In 1948, War Bonus.
(7) Including Resettlement, and Subventions and Contributions.
(8) Supplies included under Secretariat.
(9) Transport attached to Police Department.
(Failure of the items to add to the totals shown is due to rounding off.)

There remained at the end of 1951 an unexpended balance of loan funds of £2,494,211, this representing the proceeds of the loan of £2,540,000 raised in London during 1950 by the issue of 3½ per cent Inscribed Stock 1969-71, to be re-lent at interest to the Electricity Authority being formed to operate the Island's central electrification scheme now under construction.

The Development revenue and expenditure accounts show revenue of £4,679,007 and expenditure of £2,814,126 to 31st December, 1951, leaving a balance in the Fund of £1,864,882 to open 1952. Details of development expenditure, etc., are given in the section on development pages 65-67.

Taxation produced 75 per cent of the total revenue in 1938, 81 per cent in 1948, and 83 per cent in 1951. The proportion of total revenue produced by import and other customs duties fell from over 49 per cent in 1938 to 46 per cent in 1948 and to little over 35 per cent in 1951, while the proportion produced by excise duties, almost constant as between 1938 and 1948 at 14 per cent, rose in 1951 to 15 per cent. Income tax, first introduced in 1941, contributed over 16 per cent of total revenue by 1948 and nearly 28 per cent by 1951.

Import duties yielded a total of £2,551,754 in 1951, compared with £2,207,160 in 1950 and £1,895,948 in 1949. Some details are as follows :

	1949		1950	
	Imports	*Duty*	*Imports*	*Duty*
	£	£	£	£
Free of duty ..	4,761,948	—	6,053,368	—
Specific duties ..	1,673,550	1,094,378	1,985,305	1,132,740
Ad valorem duties ..	4,577,732	801,570	5,229,844	1,074,472
	11,013,230	1,895,948	13,268,517	2,207,212

Export taxes are no longer levied on agricultural products but continue to be imposed on minerals ; the yields are shown below for some recent years :

	1938	1948	1949	1950
	£	£	£	£
Agricultural Produce..	4,171	73,488	—	—
Minerals	7,920	18,035	21,910	30,620
	12,091	91,523	21,910	30,620

The principal excise duty is that on tobacco which realised in 1950 over £773,000 or 83 per cent of all excise revenue, and £887,128 in 1951. The rate of tax is £3 2s. 8d. per oke, payable in addition to import duty. Other excise duties are those on spirits, beer, salt, matches and playing cards. Playing cards are not, however, manufactured in the Island at the present time.

Income tax is levied on the chargeable income of the year preceding that of assessment. The tax is on a graduated scale rising more sharply in the higher income ranges from 1s. in the £ on the first hundred pounds above the exemption limit to 15s. in the £ on all income in excess of £6,000. Bachelors and spinsters pay an additional 33⅓ per cent in the lower and 50 per cent in the higher ranges with a maximum addition of £500. There is relief for children and for life insurance or pension fund premiums. Companies and similar bodies pay tax at the flat rate of 7s. 4½d. in the £, deducting this tax from any dividends declared ; credit is given to shareholders accordingly in assessing their personal liabilities for tax.

For the year 1951 modifications were made in allowances and rates of income tax. The exemption limit was raised from £250 to £300 and the allowance for each child was raised from £25 to £50. A married woman living with her husband became exempt from taxation on the first £50 of income separately earned by herself. On an earned income of £1,000 a year, under the new conditions, a bachelor pays income tax of £85, and a married man with two children pays £53 15s.

In 1948 some 10,000 persons, or approximately three per cent of the adult population were liable for tax. Of these, about 9,200 had assessable incomes below £1,000, while fewer than 250 had assessable incomes of over £2,000. Approximately 4,000 wage earners and salaried employees paid tax in that year.

Estate duty, introduced in 1942, is imposed on transfer of property at death ; there is provision for relief in case of rapid succession where the estate comprises immovable property or a business. The following table gives examples of estate duty payable :—

Net value of Estate	*Estate duty payable*
£	£
2,000	Nil
2,500	40
5,000	140
10,000	715
25,000	3,845
50,000	9,995
100,000	23,595

Revenue from estate duty amounted in 1951 to £52,971, compared with £28,499 in 1950.

Immovable property tax is payable by the owner at the rate of 0·35 per cent of the assessed capital value outside municipal areas and not more than 1 per cent in municipalities, where the proceeds form part of the municipal revenue.

The proceeds of the *education tax* accrue directly to school committees and are applied as described under " Education ", solely for the upkeep of school buildings and to provide textbooks, stationery, etc. Members of the Greek community are assessed for the tax in accordance with their means by the school assessment committees. Moslems and members of other indigenous minorities are assessed according to the value of their immovable property.

Local Government

The following is a summary of the revenue and expenditure of Municipal Councils from 1944 to 1949, the figures for 1949 being estimates. Figures are given separately for the four main and twelve minor municipalities. The cash balances of Municipal Councils at the end of 1948 amounted to about £85,000. Their total long-term loan liabilities were £287,000.

REVENUE OF MUNICIPAL COUNCILS, 1944-1949

Municipality and Population	1944 £	1945 £	1946 £	1947 £	1948 £	1949 (*estimated*) £
Nicosia (34,485)	37,889	60,592	60,733	77,954	80,114	76,715
Limassol (22,799)	32,244	55,263	50,358	57,795	65,578	68,285
Famagusta (16,194) ..	62,839	49,042	52,840	78,106	90,477	86,600
Larnaca (14,772)	34,234	45,926	38,489	59,365	57,338	63,311
12 minor municipalities (37,583)	46,668	58,177	51,353	73,000	68,616	75,800
Total (pop. 125,833) ..	213,874	269,000	253,773	346,220	362,123	370,711

EXPENDITURE OF MUNICIPAL COUNCILS, 1944-1949

Municipality and Population	1944 £	1945 £	1946 £	1947 £	1948 £	1949 (*estimated*) £
Nicosia (34,485)	34,469	47,340	58,300	84,316	84,197	81,270
Limassol (22,799)	35,008	50,756	52,530	59,704	67,026	71,027
Famagusta (16,194) ..	59,352	41,723	53,902	70,435	88,147	106,000
Larnaca (14,772)	33,587	45,306	38,080	59,326	63,596	59,632
12 minor municipalities (37,583)	44,971	61,470	51,078	70,947	69,501	70,112
Total (pop. 125,833) ..	207,387	246,595	253,890	344,728	372,467	388,041

Currency and Banking

The Cyprus £, which is equal in value to the £ sterling, is divided into shillings and piastres. £1 = 180 piastres.

Currency in circulation rose rapidly in wartime, reaching a maximum in 1946 at some six times the immediate pre-war level. A fall ensued during 1947 and 1948, after which a smaller rise took place in 1949 :—

CURRENCY CIRCULATION

As at 31*st December*

	1939	1946	1947	1948	1949	1950
	£	£	£	£	£	£
Notes	846,509	5,855,544	5,366,163	4,708,015	4,789,895	4,754,032
Coin	213,760	362,299	364,569	448,268	483,626	500,125
Total ..	1,060,269	6,218,843	5,730,732	5,156,283	5,273,521	5,254,157

Notes are in circulation in denominations of £5, £1, 10s., 5s., 2s. and 1s. and 3 piastres. The issue of notes in denominations lower than 5s. was a war-time expedient and was discontinued after July, 1948.

The paid up capital and the deposits of the principal banks operating in the Colony as at the 31st December, 1950, are given below :—

BANKING, 1950

Bank	*Paid up Capital*	*Deposits in the Colony*
	£	£
Ottoman Bank	5,000,000	2,577,400
Bank of Cyprus, Ltd.	466,324	2,970,536
Ionian Bank, Ltd.	600,000	811,595
Barclays Bank (Dominion, Colonial and Overseas)	7,121,500	1,102,170
Popular Bank of Limassol, Ltd.	100,000	510,151
Popular Bank of Paphos, Ltd. ..	23,408	25,593
Turkish Bank of Nicosia, Ltd. ..	40,000	223,676
Bank of Athens	...	752,560
Agricultural Bank of Cyprus ..	50,000	—

— i.e., nil (col. 2)

There is no Post Office Savings Bank, but all the abovementioned banks have savings departments, which give special facilities and pay interest on saving deposits. For details of co-operative thrift societies see page 48.

Private Investment

At the end of 1948 there were 295 local companies with a total paid up capital of £5,237,486. The capital issued during the year was £755,612. Some companies are externally controlled. At the end of 1948 there were 71 foreign companies established in the Island. There are no building societies in the island.

Bankruptcies have been very rare, receiving orders numbering nine in 1939, four between 1939 and 1947, two in 1947 and two in 1948.

National Income

A systematic and comprehensive calculation of the national income of Cyprus has been undertaken, the results of which were published in 1951. The National Income estimates were based on the Census of Employment and Production taken during the period December 1950 to May 1951, the 1950 Census of Agriculture and a housing survey and enquiry into consumers' expenditure. The censuses of employment and agriculture were full censuses whereas the census of production, the housing survey and the enquiry into consumers' expenditure were taken on a sample basis. The breakdown of net national product, national income and national expenditure is shown in the next column.

NET NATIONAL PRODUCT 1950

		£000	%
Agriculture	(value added)	10,592	29·8
Mining and Quarrying	„	4,800	13·5
Manufacture	„	7,241	20·4
Distribution	„	3,311	9·3
Transport	„	1,528	4·3
†Government Services	„	3,372	9·5
Other Industries and Services ..	..	6,698	18·9
		37,542	
Less depreciation of capital ..	..	1,079	4·8
Plus net income from abroad ..	..	−338	−0·9
Total Net National Product (accruing to residents)	..	35,495	100

NET NATIONAL INCOME 1950

	£000	%
Rents	4,892	13·8
Profits	18,428	51·9
Interest	899	2·5
Salaries and Wages	11,614	32·7
Plus net income from abroad	−338	−0·9
Total Net National Income	35,495	100

NET NATIONAL EXPENDITURE 1950

	£000	%
Personal consumption at market prices	29,037	81·8
Plus Government Subsidies	230	0·6
*Plus Government current expenditure on goods and services	4,903	13·8
Less indirect taxes	3,218	9·1
	30,952	
Plus net investment	4,881	13·8
Plus net income from abroad	−338	−0·9
Total Net National Expenditure ..	35,495	100

* Central, Local and development and welfare.
† Central, local and defence.

The average net income per head of the population (excluding H.M. Forces in Cyprus) is estimated at £70·5 and that of the working population at £133 per head (excluding rental value of housing and H.M. Forces in Cyprus). The net output per person employed in agriculture was £78, in forestry and fishing £100, in mining and quarrying £764, in manufacturing £165, and in services (excluding rental of housing) £241.

Standard and Cost of Living

Retail prices in Cyprus, at 1st January, 1950, had reached a level substantially over three times that which prevailed in August, 1939. The changes in the index and in the prices of the main articles of diet are summarised in the following table :—

RETAIL PRICE INDICES, 1939–49

	Index	*Prices (Piastres per Oke)*					
		Bread	*Olives*	*Local Cheese*	*Broad Beans*	*Potatoes*	*Sugar*
August, 1939 ..	100	—	—	—	—	—	—
31st January, 1946 ..	231	3·5	26·5	46	8·6	4·5	24
31st January, 1947 ..	257	3·5	28	40	8·4	4·5	24
31st January, 1948 ..	315(1)	3·5	33·1	89·4	17·7	5·5	24
31st January, 1949 ..	312	4·5	30	76	11	4	24
31st December, 1949	329	4·5	24	99	7·5	3·3	24

(1) There was a change in 1948 in the method of compiling the index, but the base date August, 1939 = 100 was retained.

A new Retail Price Index was introduced in January, 1950, having a revised weights base and employing new administrative arrangements for obtaining comparable quotations. The new index, like the old ones, aims at covering the urban wage-earner. The weights used in the new index are as follows : Bread 120, Meat 105, Other Food 265, Rent 160, Clothing and Textiles 100, Fuel and Light 44, Cigarettes and Tobacco 94, Alcoholic Drink 24, Household and Miscellaneous Items 88 (Total 1,000).

Changes in the new index from the date of its inception are shown below :—

COST OF LIVING INDEX, 1950-51 (JANUARY 1950 = 100)

Date	*Food*	*Rent*	*Clothing and Textiles*	*Fuel and Light*	*Drink and Tobacco*	*Other Items*	*Total*
1950							
16th March ..	102·1	100·3	100·2	101·4	100·7	99·5	101
15th June	106·6	100·1	101·2	97·8	100·1	99·1	103
14th September ..	106·5	100·5	105·6	99·7	101·0	100·0	104
14th December ..	109·4	100·4	115·7	104·9	101·2	102·0	107
1951							
15th March ..	114·1	104·2	127·6	104·4	102·0	111·2	112
14th June	119·4	104·2	130·5	106·3	104·5	115·4	115
13th September ..	128·6	105·4	128·4	106·3	104·6	113·6	120
13th December ..	127·4	106·1	128·8	113·4	105·5	113·9	120

Balance of Trade and Payments

The trend of visible trade since 1878 is illustrated by the following table :—

EXTERNAL TRADE, 1878-1948

Year	*Total Imports*	*Total Exports*	*Export Surplus*
	£	£	£
1878 ..	177,651	157,328	− 20,323
1888 ..	232,807	210,297	− 22,510
1898 ..	288,258	343,687	55,429
1908 ..	567,444	588,904	21,460
1918 ..	1,013,582	861,345	− 152,237
1928 ..	1,840,442	1,435,767	− 404,675
1938 ..	2,246,435	2,478,256	231,821
1948 ..	15,422,091	5,678,617	−9,743,474

Changes in external trade from year to year during the past two decades are summarised in the table below :—

Year	*Total Imports*	*Re-exports*	*Retained Imports*	*Domestic Exports*	*Export Surplus*
	£	£	£	£	£
1932	1,347,288	62,941	1,284,347	857,301	− 427,046
1933	1,257,256	74,564	1,182,692	814,951	− 367,741
1934	1,419,162	68,315	1,350,847	1,011,112	− 339,735
1935	1,481,941	62,429	1,419,512	1,126,577	− 292,935
1936	1,485,716	71,328	1,414,388	1,523,487	109,099
1937	2,219,429	83,722	2,135,707	2,096,326	− 39,381
1938	2,246,435	87,331	2,159,104	2,390,925	231,821
1939	1,892,088	81,164	1,810,924	2,341,773	530,849
1940	1,667,038	112,116	1,554,922	1,414,307	− 140,615
1941	1,985,903	98,125	1,887,778	976,636	− 911,142
1942	2,254,745	92,758	2,161,987	1,106,838	−1,055,149
1943	2,247,248	110,526	2,136,722	2,076,541	− 60,181
1944	4,804,803	104,387	4,700,416	2,348,109	−2,352,307
1945	5,330,260	213,110	5,117,150	3,319,677	−1,797,473
1946	8,131,831	317,189	7,814,642	3,885,111	−3,929,531
1947	13,584,889	325,097	13,259,792	4,815,637	−8,444,155
1948	15,422,091	501,739	14,920,352	5,176,878	−9,743,474
1949	11,013,230	637,370	10,375,860	7,605,919	−2,769,941
1950	13,474,290	565,695	12,908,595	10,493,344	−2,415,251
1951	19,248,669	1,004,705	18,243,964	14,289,420	−3,954,544

NOTES

(1) All the figures are for merchandise trade, inclusive of gold and silver bullion but exclusive of specie and exclusive of military and N.A.A.F.I. imports.

(2) Figures of re-exports and of domestic exports for the year 1932 are exclusive of ship's stores.

Following the disturbed conditions of the early 1930's, the Island's visible external trade was again roughly in balance by 1936-37, and increasing export surpluses were recorded in 1938 and 1939. The normal movement of shipping and the flow of commercial traffic were interrupted by the war, and import surpluses arose, increasing towards the end of the war period. With the cessation of hostilities and the gradual resumption of shipping services and trading relations, the pressure of pent-up demand made itself felt in a flood of imports of all kinds, with which exports did not at first keep pace. Import surpluses reached unprecedented levels but dropped again after 1949 when the volume and value of imports fell quite substantially while those of exports underwent a rapid rise. The imports of the post-war years which have contributed to raise import surpluses include, of course, substantial quantities of equipment and stores for the reconstruction and development of the mines, capital goods for the furtherance of Government Development projects, and consumer goods for persons engaged in projects financed by C.D. and W. grants, as well as goods of all kinds needed to rebuild depleted stocks.

The Island's receipts and payments on invisible account have been calculated annually and published in the Trade Return to 1949 ; the figures are given below. The principal items on the receipts side are payments from

Imperial funds to H.M. Forces in Cyprus (over £1 m., in 1948), and in several recent years, welfare expenditure incurred on behalf of Jews detained in Cyprus out of funds provided from abroad (over £2 m., in 1948). Tourist traffic provided some £½ m., in 1948, and is estimated to have earned between £900,000 and £1,125,000 in 1950.

INVISIBLE TRADE, 1937-50

Year	*Invisible Imports*	*Invisible Exports*	*Surplus on Invisible Account*
	£	£	£
1937	244,000	446,000	202,000
1938	302,000	437,000	135,000
1939	302,000	373,300	71,300
1940	202,000	597,500	395,500
1941	152,000	2,400,000	2,248,000
1942	162,000	4,122,000	3,960,000
1943	172,000	3,974,000	3,802,000
1944	1,202,000	4,950,000	3,748,000
1945	1,185,700	5,138,000	3,952,300
1946	613,293	4,396,000	3,782,707
1947	302,000	4,541,000	4,239,000
1948	552,000	4,903,000	4,351,000
1949	1,059,000	3,658,400	2,599,400
1950	...	...	...

... = not available.

Cyprus imports a wide variety of foodstuffs, raw materials and manufactured articles for direct consumption, for current use in the Island's industries (manufacture of buttons, artificial teeth), and for the equipment of mines and farms in particular, and of the economy in general. Copper and pyrites represent approximately 40 per cent of exports, and minerals as a whole some 45-50 per cent in the post-war period. Prominent among the remaining exports are carobs, which account for some 8-11 per cent of the whole, citrus fruits being some 8 per cent, and vine products amounting to 3-5 per cent of all exports in 1949 and 1950. Imports are derived increasingly and to a greater extent than formerly from the United Kingdom (approximately 45 per cent in 1949 and 1950 as compared with 32 per cent in 1938). Exports continue to be directed more largely towards non-Commonwealth countries, and rather more so in 1949 and 1950 (75-78 per cent) than in 1938 (71 per cent). Again in 1949 and 1950 as formerly in 1938 Germany was the Island's principal customer, taking 35 per cent of total exports in 1938, 16·7 per cent in 1949 and 22·8 per cent in 1950; the second largest customer was the United Kingdom, taking 24, 16·2 and 20·1 per cent in the three years respectively.

In the following tables imports and exports are analysed in some detail according to the principal items and classes and to countries of origin and destination.

PRINCIPAL IMPORTS OF CYPRUS, 1938, 1949 AND 1950

Commodity	*Unit of Quantity*	1938			1949			1950		
		Quantity	*Value (£)*	*Principal Countries of origin (with values in £000s)*	*Quantity*	*Value (£)*	*Principal Countries of origin (with values in £000s)*	*Quantity*	*Value (£)*	*Principal Countries of origin (with values in £000s)*
Wheat	tons	4,988	34,648	Iraq (29), Syria (4), India (2)	45,683	1,333,582	Australia (all)	29,041	832,580	Australia (607), Syria (225)
Barley	,,	20	94	Turkey (all)	3,611	112,927	U.S.S.R. (all)	—	—	—
Rice	,,	1,688	17,103	Burma (6), Siam (6), Egypt (5)	1,810	76,300	Egypt (all*)	1,456	76,346	Egypt (55), Siam (22)
Wheat Flour (incl. Semolina) ..	,,	16,911	163,073	Australia (133), India (29)	1,989	74,349	Australia (all*)	622	26,747	Australia (all)
Butter and Butter substitutes ..	,,	444	22,379	Netherlands (7), Australia (6), Denmark (5), Syria (3)	420	89,229	Netherlands (46), Australia (22), Denmark (11), U.K. (10)	536	125,719	Australia (58), U.K. (31), Holland (28), Denmark (4), Syria (3)
Condensed Milk and Milk Powder.	,,	201	9,991	Netherlands (8), U.K. (2)	854	124,878	Netherlands (91), Australia (25), Denmark (5), U.K. (3).	1,045	140,865	Holland (94), Australia (39), Denmark (6), U.K. (3).
Olives	,,	34	1,066	Greece (all*)	198	23,604	Greece (15), French Possessions (5), Italy (4).	131	13,881	Greece (9), Algeria (3), Turkey (1), Italy (1).
Coffee	,,	851	25,972	Brazil (all*)	857	99,960	Brazil (98·5), U.K. (1·4)	289	87,042	Brazil (75), U.K. (12)
Fish—fresh, tinned, dried, etc...	,,	...	18,720	U.K., (8), Japan (5), Portugal (4)	493	58,703	U.K. (20), Norway (16), Italy (8), S. Africa (4·5), Portugal (4).	968	135,433	U.K. (46), Norway (30), Portugal (19), S. Africa (18), Italy (7), Australia (3).
Edible Oils	,,	1,375	32,131	Denmark (8), U.K. (7), Brit. E. Indies (5), Egypt (4), Sweden (3)	2,121	324,973	Netherlands (207), S. Africa (39), Ceylon (34), Brit. E. Africa (9), India (8).	1,683	225,961	Egypt (83), U.K. (73), Sudan (44), Netherlands (11).
Sugar	,,	3,481	32,498	U.K. (32), N.E.I. (1)	3,362	151,772	U.K. (all*)	5,208	238,190	U.K. (231), Netherlands (7)
Other Foodstuffs	,,	...	62,346	...	...	310,949	...	...	563,205	...
Alcoholic Drinks	galls.	31,071	9,730	U.K. (8·6), Germany (0·4), France (0·4)	71,233	44,571	U.K. (30), Netherlands (6), France (4), Denmark (3).	85,412	53,299	U.K. (39), France (5), Netherlands (4), Denmark (3).
Unmanufactured Tobacco ..	tons	304	42,632	Greece (38), U.S.A. (2), Turkey (1)	182	70,584	U.S.A. (49), S. Africa (11), Greece (5), Persia (2), Turkey (2).	338	153,084	U.S.A. (117), Rhodesia (19), Greece (14), Persia (3).
Cigarettes	,,	6	5,151	U.K. (4), U.S.A. (1)	125	146,616	U.K. (all*)	100	135,237	U.K. (all*)
Other Manufactured Tobacco..	,,	1	738	U.K. (0·5), U.S.A. (0·1)	1	1,811	U.K. (all*)	1·5	2,761	U.K. (1·8), Netherlands (0·9)
Asphalt and Bitumen	,,	1,953	14,023	U.K. (10), Egypt (4)	2,673	38,200	Persia (21), U.K. (8), Egypt (6), Syria (3).	2,958	37,791	Egypt (33), Syria (2), U.K. (2)
Coal	,,	4,097	8,345	U.K. (7), Egypt (1)	3,851	29,298	U.K. (all)	1,492	10,678	S. Africa (7), U.K. (4)
Sulphur	,,	290	2,529	Italy (2), France (0·3)	1,222	22,481	Italy (all*)	118	3,297	Italy (all*)
Wood and Timber	cu. ft.	1,191,978	116,930	Roumania (84), Sweden (13), Yugoslavia (4), U.S.A. (3), France (2)	776,000	257,832	Sweden (80), Portugal and Possessions (53), U.S.A. (37), Austria (31), Czechoslovakia (22), Yugoslavia (15), Italy (13).	1,498,955	582,743	Sweden (176), Portugal (154), Italy (108), Austria (80), Czechoslovakia (42).
Cotton, ginned and waste ..	tons	...	...	...	355	75,063	U.S.A. (65), Egypt (9), U.K. (2)	74	14,126	Turkey (10), U.K. (2), Egypt (1)
Linseed Oil	,,	77	2,340	U.K. (2·1), Netherlands (0·2)	46	7,336	India (4), Netherlands (2), U.K. (2).	74	10,681	U.K. (7), India (4)
Coconut Oil	,,	...	...	.	411	33,781	Palestine (all)	20	1,970	Netherlands (all)
Seed Potatoes	,,	671	5,600	U.K. (all)	1,561	32,153	U.K. (14), Eire (11), Denmark (7)	1,538	32,415	U.K. (all)
Raw Materials for button manufacture	—	...	...	...	...	40,800	Sudan (16), Aden (12), Malaya (9), Australia (4).	...	70,275	Sudan (32), Australia (19), Singapore (7), Indonesia (6).
Other Raw Materials, etc. ..	—	...	20,573	...	...	60,841	—	...	131,373	—
Earthenware, including china ..	—	...	10,865	U.K. (2), Germany (2), Japan (2), Czechoslovakia (1)	...	39,253	U.K. (23), France (7), Italy (4), Hungary (1), Greece (1).	...	83,117	U.K. (52), Czechoslovakia (11), Italy (8), France (7).
Glass and Glassware, all kinds..	—	...	18,670	Belgium (6), Yugoslavia (3), Germany (2), Czechoslovakia (2)	...	61,561	U.K. (31), Czechoslovakia (11), France (4), Yugoslavia (4), Poland (3), Netherlands (2).	...	121,826	U.K. (37), Czechoslovakia (37), France (17), Belgium (10), Germany (8).
Cement	tons	17,927	33,884	Yugoslavia (14), Palestine (9), U.K. (6), Syria (3)	36,775	243,411	U.K. (195), Yugoslavia (23), Denmark (21), Italy (3).	— 41,238	268,856	U.K. (186), Italy (42), Yugoslavia (40), Denmark (1).
Iron pipes, etc., and fittings therefor.	,,	697	15,237	U.K. (11), Germany (2), Belgium (1).	2,882	142,169	U.K. (130), Italy (4), Belgium (4), U.S.A. (4).	4,727	257,242	U.K. (226), Germany (27), France (2), Italy (1).

Iron and Steel (Other) and Manufactures thereof.	—	...	86,987	Belgium (31), U.K. (20), France (9), Egypt (6), Germany (6), Luxembourg (3).	...	337,018	U.K. (187), France (66), Italy 30), Sweden (22), U.S.A. (12), Belgium (10).	...	533,325	U.K. (280), France (81), Germany (77), Belgium (28), Sweden (22), Italy (15).
Non Ferrous Metals and Manufactures thereof.	—	...	10,692	U.K. (6), Germany (2), Belgium (1), Japan (1).	...	83,942	U.K. (55), Italy (13), Austria (7), Hong Kong (3), Australia (1).	...	146,106	U.K. (88), Germany (21), Italy (12), Hong Kong (11), Canada (8).
Hardware	—	...	35,011	Germany (10), U.K. (9), Japan (3), France (3), Czechoslovakia (2), Italy (2).	...	82,309	U.K. (52), Sweden (9), Italy (9), France (2), Germany (2).	...	105,893	U.K. (53), Germany (19), Italy (9), Austria (6), Sweden (4), Czechoslovakia (3).
Cutlery	—				...	30,505	U.K. (22), Italy (4), France and Possessions (3), Germany (1).	...	51,166	U.K. (25), Germany (11), Italy (7), France (5), Austria (2).
Implements and Tools	—	...	13,921	U.K. (6), Germany (4), U.S.A. (1), France (1).	...	40,263	U.K. (25), Italy (6), France (2), U.S.A. (2), Czechoslovakia (2).	...	54,064	U.K. (26), Germany (19), France (3) Italy (2), Austria (1), U.S.A. (1).
Scientific Instruments, etc.(1) ..	—	...	22,478	Germany (7), U.K. (6), Switzerland (5).	...	67,711	U.K. (33), France (18), Italy (8), U.S.A. (8).	...	89,689	U.K. (35), France (18), Germany (16), Italy (12), U.S.A. (3).
Electrical Goods and Apparatus			28,200	U.K. (13), Germany (6), Netherlands (3), U.S.A. (2).	...	278,060	U.K. (231), U.S.A. (19), Netherlands (14), Italy (5), Denmark (3)	...	518,042	U.K. (299), U.S.A. (183), Netherlands (14), Germany (6), Italy (6).
Ploughs	number	298	896	Germany (0·4), Czechoslovakia (0·2), Greece (0·1).	363	12,740	U.S.A. (8), U.K. (2), Canada (1), Germany (1).	580	13,978	Germany (7), U.K. (4), France (2), U.S.A. (1).
Mowers, reapers and threshers	„	12	345	U.S.A. (0·2), U.S.S.R. (0·1).	147	17,397	U.S.A. (6), U.K. (4), Canada (3), Sweden (2), France (1).	115	19,532	U.K. (10), U.S.A. (5), Germany (2), France (1), Sweden (1).
Tractors	„	7	2,093	U.S.A. (1·6), Hungary (0·5).	135	87,663	U.S.A. (62), U.K. (23), Czechoslovakia (1), Hungary (1).	97	57,611	U.K. (41), Germany (10), U.S.A. (7)
Other Agricultural Machinery and parts thereof.	—	...	1,962	U.K. (1), Germany (0·4)	...	34,492	U.S.A. (20), U.K. (8), Italy (4), France (1), Canada (1).	...	49,078	U.K. (17), U.S.A. (13), Italy (9), France (4), Germany (2).
Mining Machinery	—	...	115,208	U.K. (56), U.S.A. (29), Germany (17), Belgium (8), Palestine (1).	...	59,012	U.S.A. (35), U.K. (22), Sweden (2), Canada (1).	...	70,230	U.K. (40), U.S.A. (20), Denmark (6), Belgium (2), Sweden (1).
Oil Engines	number	265	17,636	U.K. (14), Czechoslovakia (3).	509	125,080	U.K. (119), Denmark (2), Czechoslovakia (2).	602	101,811	U.K. (96), France (2), Sweden (2), Australia (1).
Oil Engine parts	—	...	2,779	U.K. (2·4), Germany (0·2), Austria (0·1).	...	51,145	U.K. (41), Germany (6), U.S.A. (1), Sweden (1), Italy (1).	...	57,342	U.K. (49), Germany (5), U.S.A. (1), Czechoslovakia (1).
Pumps (chiefly power driven) ..	number	326	2,434	U.K. (0·6), U.S.A. (0·4), Germany (0·4), Italy (0·3)	1,179	37,575	U.K. (20), U.S.A. (8), Australia (4), France and Possessions (3).	734	20,624	U.K. (10), France (4), India (1), Germany (1), Italy (1), U.S.A. (1).
Other Machinery and parts(2)..	—	...	77,780	U.K. (31), Germany (14), U.S.A. (7), Palestine (6), Belgium (5).	...	416,197	U.K. (244), U.S.A. (68), Italy (43), France (14), Czechoslovakia (11) Sweden (8).	...	542,482	U.K. (414), U.S.A. (39), Italy (26), Germany (16), Sweden (13), France (11).
Casks, vats and parts thereof ..	—	...	1,871	France (1), U.K. (0·5)	...	25,141	Italy (10), France (7), U.K. (6).	...	45,702	France (2), Italy (10), U.K. (5), Netherlands (4).
Plywood and other Wood manufactures n.e.s.	—	...	7,541	Poland (3), U.K. (1), Roumania (1)	...	39,723	Finland (9), Italy (8), Yugoslavia (8), Czechoslovakia (2) France (2).	...	58,232	Italy (21), Czechoslovakia (15), Yugoslavia (5), Finland (5), Netherlands (4).
Footwear	pairs	83,950	8,413	Czechoslovakia (4), U.K. (3), Japan (1).	277,550	123,106	U.K. (87), Hong Kong (15), India (9), Czechoslovakia (8), Lebanon (2).	379,582	158,861	U.K. (112), Hong Kong (17), India (14), Czechoslovakia (11), Egypt (3).
Hosiery, all kinds (mainly of cotton).	pairs		52,807	U.K. (15), Japan (9), Hong Kong (9), Germany (6), Italy (5), Czechoslovakia (2).	871,212	78,466	U.K. (64), Czechoslovakia (6), Hong Kong (5), Italy (3).	1,769,736	134,657	U.K. (85), Italy (32), Hong Kong (13), Czechoslovakia (2), U.S.A. (1).
Jerseys, pullovers, etc. (mainly wool).	numbers				90,660	43,817	U.K. (41), Austria (2·5)	91,728	50,069	U.K. (48), Italy (1).
Shirts (mainly cotton)	„				43,980	20,995	U.K. (15), Czechoslovakia (4), Hong Kong (2).	59,484	27,705	U.K. (20), Czechoslovakia (4), Hong Kong (2), Italy (1), Lebanon (1).
Vests, singlets, pants, etc. (mainly cotton).	„				360,228	52,474	U.K. (51), India (0·5), Netherlands (0·3), Italy (0·2).	442,644	57,584	U.K. (52), India (3), Hong Kong (1).
Other apparel, n.e.s.	—					110,113	U.K. (100), France (4), India (2), U.S.A. (2).		108,318	U.K. (88), Italy (11), U.S.A. (2), India (2), Israel (2).
Cotton Yarns	tons	506	43,485	India (26), U.K. (14), Italy (3), Japan (1).	104	49,105	U.K. (47), Italy (2)	59	36,490	U.K. (28), India (5), Italy (4).
Cotton thread	000 yds.	366,753	10,799	U.K. (8), Germany (2).	464,627	63,977	U.K. (58), France (5), Italy (1).	757,912	92,898	U.K. (69), Italy (13), France (11).

PRINCIPAL IMPORTS OF CYPRUS, 1938, 1949, AND 1950—*continued*

Commodity	*Unit of Quantity*	1938			1949			1950		
		Quantity	*Value (£)*	*Principal Countries of origin (with values in £000s)*	*Quantity*	*Value (£)*	*Principal Countries of origin (with values in £000s)*	*Quantity*	*Value (£)*	*Principal Countries of origin (with values in £000s)*
Cotton Piece Goods	yards	6,972,621	131,021	U.K. (60), India (21), Italy (19), Germany (8), Belgium (8), Czechoslovakia (6).	5,594,401	489,177	U.K. (313), India (58), Italy (42), Japan (29), Hong Kong (13), Netherlands (11).	7,183,439	627,596	U.K. (412), India (126), Italy (56), Netherlands (25), Germany (4).
Other Cotton manufactures n.e.s. (excluding apparel)	—	...	23,285	U.K. (10), Japan (4), Italy (3), Syria (2), Czechoslovakia (1).	...	79,734	U.K. (57), Italy (10), Netherlands (4), Japan (3), France (1), U.S.A. (1).	...	107,659	U.K. (65), Italy (27), Netherlands (4), Hong Kong (2), Belgium (2), Germany (2).
Woollen and Worsted Yarns ..	tons	11	4,573	U.K. (all*)	45	54,182	U.K. (53), France (1)	43	52,472	U.K. (50), France (2)
Woollen Piece Goods	yards	457,390	79,329	U.K. (67), Germany (5), Italy (4), Czechoslovakia (1).	461,609	339,647	U.K. (327), Italy (6), Netherlands (4), Czechoslovakia (2).	790,108	428,340	U.K. (385), Italy (38), Germany (2), Greece (1), Czechoslovakia (1).
Other Woollen and Worsted manufactures n.e.s. (excluding apparel)	—	...	9,234	U.K. (6), Persia (1)	...	39,446	U.K. (32), U.S.A. (2), Persia (1)	...	33,713	U.K. (26), Lebanon (4), U.S.A. (1), Italy (1), Persia (1).
Art Silk Piece Goods	yards	1,026,768	32,072	France (8), U.K. (6), Italy (5), Japan (5), Syria (2), Czechoslovakia (2), Switzerland (2).	1,373,173	193,922	U.K. (122), Italy (63), Netherlands (3), France (3).	2,160,029	287,280	U.K. (227), Italy (49), France (6), Netherlands (2), Germany (2).
Other Silk and Art Silk Manufactures (excluding apparel)	—	...	8,659	U.K. (3), Japan (2), Italy (1), Syria (1), Germany (1).	...	16,460	U.K. (12), Italy (2), Netherlands (1), U.S.A. (1).	...	33,275	U.K. (15), Italy (12), Netherlands (2), Germany (1), France (1), Japan (1).
Linen Manufactures (including piece goods)	—	...	6,085	U.K. (3), France (2)	...	15,037	U.K. (12), France (2), Czechoslovakia (1).	...	23,370	U.K. (21), France (2).
Sacks and bags	No.	1,780,210	33,196	India (31), Egypt (1)	1,449,951	121,003	India (109), U.K. (12)	2,304,406	232,529	India (158), U.K. (68), Egypt (3), Netherlands (2).
Other Textiles	—	...	10,290	U.K. (5), Italy (1), Belgium (1), Czechoslovakia (1).	...	42,232	U.K. (31), India (5), Italy (3), France (1).	...	69,090	U.K. (39), India (11), Italy (7), Egypt (6), France (2).
Chemical Manures	tons	...	...	...	21,824	264,842	Italy (168), U.K. (47), Austria (17), Greece (16), Korea (6).	27,672	359,533	Italy (141), U.K. (75), Austria (44), Greece (40), Netherlands (17).
Drugs, Medicines, etc.	—	...	27,387	Germany (10), U.K. (8), France (5), Greece (1), Switzerland (1).	...	92,961	U.K. (72), France (13), Greece (3), U.S.A. (2).	...	125,867	U.K. (89), France (17), Germany (4), Italy (4), Greece (3).
Other Chemical Products (3) ..	—	—	49,054	U.K. (21), Germany (8), U.S.A. (4), Netherlands (2), Greece (2).	...	153,772	...	...	224,140	...
Fuel Oils, including Gas and Diesel Oils (4)	gallons	3,812,282	56,367	Roumania (28), U.S.S.R. (18), Persia (9).	10,375,496	329,076	Persia (210), Arabia (119)	11,501,093	424,158	Persia (269), Arabia (128), Iraq (28).
Benzine, Petrol, or Motor Spirit.	„	1,489,345	40,154	Roumania (all *)	5,430,719	292,103	Persia (182), Arabia (104), U.S.A. (6).	6,480,175	357,539	Persia (222), Iraq (74), Arabia (61).
Kerosene	„	946,918	24,141	Roumania (all *)	3,881,153	145,558	Persia (90), Arabia (56)	5,167,012	229,237	Persia (135), Arabia (64), Iraq (30).
Lubricating Oils	tons	806	17,131	U.S.A. (10), U.K. (4), Egypt (2)	2,209	110,843	U.S.A. (63), U.K. (47)	1,827	104,838	U.S.A. (65), U.K. (40).
Soaps	„	180	7,130	U.K. (6), Greece (1)	217	35,405	U.K. (all *)	301	44,408	U.K. (all *).
Dressed and Sole Leather ..	„	...	49,616	Egypt (13), Syria (11), India (7), France (5), Belgium (3), U.K. (3).	235	126,574	Egypt (64), U.K. (27), India (12), Lebanon (8), Australia (5).	330	164,888	Egypt (70), India (36), U.K. (35), Lebanon (6), S. Africa (6).
Paper, Paper Products and Stationery.	—	...	47,342	U.K. (13), Germany (10), Austria (7), Sweden (3), Czechoslovakia (3), Netherlands (3).	...	181,372	...	...	181,016	...
Books, Atlases and Maps ..	gross	...	8,593	U.K. (3.5), Greece (3.5).	...	45,775	Greece (25), U.K. (15), Turkey (2), U.S.A. (2).	...	54,265	Greece (30), U.K. (18), Turkey (3), U.S.A. (1).
Vehicles and parts thereof—										
Aircraft and Parts	—	—	—	—	...	36,002	U.S.A. (25), U.K. (11)	...	43,347	U.S.A. (33), U.K. (9), Canada (1).
Bicycles	No.	3,778	10,957	U.K. (all *)	8,735	72,046	U.K. (all *)	6,522	54,414	U.K. (all *).
Bicycle Parts and Accessories	—	...	3,934	U.K. (2), Germany (1)	—	23,016	U.K. (17), Netherlands (5), Denmark (1).	—	20,993	U.K. (17), Netherlands (3), Germany (1).

Motor Cars, Omnibuses, etc., and Chassis.	numbers	421	63,448	U.K. (36), Canada (24), U.S.A. (3)	933	289,095	U.K. (248), U.S.A. (28), France (6), Italy (4), Canada (4).	1,086	364,476	U.K. (339), Canada (13), U.S.A. (6), Italy (4), France (2).
Motor Cars, etc., Parts and accessories.	—	...	11,093	U.K. (6), U.S.A. (4), Canada (1).	...	48,257	U.K. (34), U.S.A. (9), Canada (4),		57,741	U.K. (45), U.S.A. (5), Canada (3), Germany (1), Australia (1).
Motor Cycles	numbers	110	4,099	U.K. (all*)	352	24,833	U.K. (23), Czechoslovakia (2).	359	30,999	U.K. (all*).
Motor Cycles and Parts ..	—	...	285	U.K. (all)	...	4,802	U.K. (all*)	...	3,819	U.K. (all*).
Rly. Locomotives, Wagons, etc., and Parts.	—	...	577	U.K. (0·3), Germany (0·2)	...	30,535	U.K. (18), U.S.A. (8), Belgium (3)	...	14,674	U.K. (10), Germany (1).
Other Vehicles, etc.	—	...	1,501	U.K. (1), Palestine (0·2), Czechoslovakia (0·1), Egypt (0·1).	...	15,435	U.K. (14), Egypt (1), Netherlands (1)		21,733	U.K. (all*).
Tyres and Tubes										
Bicycle	numbers	...	2,039	U.K. (1·3), Belgium (0·3), Germany (0·2), Netherlands (0·1).	53,719	9,523	U.K. (all*)	56,538	9,252	U.K. (all*).
Motor Car, etc.	,,	...	26,206	U.K. (18), Canada (6), U.S.A. (2)	18,387	85,021	U.K. (all*)	24,220	116,144	U.K. (all*).
Motor Cycle					3,381	2,991	U.K. (all)	3,717	3,500	U.K. (all*).
Other Rubber Manufactures ..	—	...	4,278	U.K. (2), Japan (1), Germany (1).	...	35,401	U.K. (18), Ceylon (9), Malaya (6), U.S.A. (1).	...	40,300	U.K. (22), Ceylon (8), Malaya (3), Singapore (2), Austria (2).
Matches	gross	44,378	4,241	Sweden (3·9), Finland (0·3).	81,261	25,350	Hong Kong (7), Sweden (6), S. Africa (4), Finland (3), Italy (2).	110,159	36,311	Sweden (20), Czechoslovakia (5), Finland (5), Hong Kong (3), S. Africa (2).
Materials and Apparatus for the manufacture of False Teeth	—	...	...		...	31,056	Palestine (16), U.K. (14), Norway (1), U.S.A. (1).	...	65,516	Israel (43), U.K. (19), U.S.A. (2).
Toys and Games	—	...	3,112	Germany (1), U.K. (1), Japan (1)	...	21,381	U.K. (19), Hong Kong (1)	...	24,002	U.K. (16), Germany (3), Italy (2).
Personal and Household Effects	—	...	11,665	U.K. (7), Austria (2)	...	69,988	U.K. (38), Egypt (13), U.S.A. (10), Malta (1), Lebanon (1).	...	71,425	U.K. (39), U.S.A. (16), Egypt (2), Greece (2), Turkey (1).
Other manufactures	—	...	162,066		...	179,154	...	...	686,402	...
Animals not for food	numbers	...	612	U.K. (0·4), U.S.S.R. (0·1)	56	1,745	U.K. (all *)	384	1,580	U.K. (all*).
Total Imports			2,246,435			11,013,230		...	13,474,290	

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(1) Excluding films.
(2) Includes sewing machines and typewriters.
(3) Including disinfectants and insecticides, dyes and dyestuffs, paints and varnishes, etc.
(4) Shown as crude petroleum in 1938.
— = Nil or negligible.
... = Not known or not yet available.
* = Apart from an insignificant amount.

PRINCIPAL DOMESTIC EXPORTS, 1938, 1949 AND 1950

Commodity	Unit of Quantity	1938			1949			1950		
		Quantity	Value (£)	Principal Countries of Destination (with values in £000s)	Quantity	Value (£)	Principal Countries of Destination (with values in £000s)	Quantity	Value (£)	Principal Countries of Destination (with values in £000s)
Oxen (living, for food)	numbers	2,237	28,290	Palestine (18), Egypt (10).	—	—	—	—	—	—
Barley	tons	1,430	9,568	U.K. (all*).	26,232	457,726	Denmark (426), Israel (31).	8,231	186,449	Israel (160), Egypt (15), Brit. W. Africa (11).
Cheese (1)	,,	320	23,154	Egypt (17), Syria (2), U.S.A. (1).	142	48,225	Lebanon (27), Egypt (14), Israel (3), Greece (2).	235	84,264	Lebanon (25), Egypt (22), Dodecanese (13), Greece (11), Jordan (7).
Grapefruit	numbers	978,158	3,621	U.K. (all*).	12,008,503	116,463	U.K. (85), Germany (14), Sweden (9), Egypt (4).	13,947,873	127,893	U.K. (113), Sweden (5), Egypt (3), Singapore (2), Switzerland (2).
Lemons	,,	11,302,390	11,267	U.K. (all*).	8,975,078	30,939	U.K. (24), Egypt (4), Canada (2), Belgium (1).	22,675,138	99,072	U.K. (86), Roumania (4), France (3), Egypt (3), Sweden (2), Syria (1).
Oranges	,,	56,369,921	84,262	U.K. (50), Norway (20), Sweden (4), Finland (1), Sudan (1).	71,385,977	460,682	Germany (185), Sweden (121), Egypt (62), U.K. (40), Arabia (15).	84,280,708	530,215	U.K. (330), Germany (64), Singapore (36), Sweden (28), Netherlands (21).
Raisins	tons	2,250	29,029	France (11), U.K. (8), Egypt (3), Italy (3).	3,028	96,463	Israel (55), Egypt (15), Germany (9), Netherlands (8).	5,119	175,543	Israel (84), U.K. (34), Germany (19), France (13), Egypt (8).
Almonds, shelled and unshelled.	,,	379	15,766	U.K. (11), India (4).	1,049	55,470	U.K. (32), Germany (10), India (8), Brit. W. Indies (1).	973	78,084	U.K. (27), India (26), Germany (13), France (2), Rhodesia (2).
Other fruit and nuts (2)	,,	...	20,820	...	...	84,178	...	...	121,536	...
Onions	,,	3,001	14,026	Egypt (12), U.K. (1).	2,595	37,994	Israel (15), Brit. W. Indies (8), Singapore (6), Egypt (6).	3,696	60,141	Israel (33), Brit. W. Indies (10), Egypt (7), Malaya (5).
Potatoes (excl. Seed Potatoes).	,,	13,327	70,920	Palestine (19), Egypt (19), Greece (14), Brit. W. Indies (10), U.K. (6).	25,967	321,106	Israel (108), Ceylon (64), Libya (35), Egypt (23), Malaya (22).	16,158	287,990	Ceylon (99), Egypt (63), Singapore (30), Malaya (30), Libya (18).
Other Vegetables	—	...	440	U.K. (all*).	...	3,526	Kuwait (2), U.K. (1).	...	8,021	Kuwait (5), Israel (1), Brit. W. Indies (1), U.K. (1).
Wines	gallons	1,268,943	74,900	U.K. (33), Egypt (29), Sudan (7), Malta (4), Brit. W. Indies (1).	1,147,520	122,321	Malta (30), Egypt (26), Belgium (24), U.K. (17), Sudan (16), Brit. W. Africa (5).	2,527,454	335,536	Belgium (102), Malta (55), Sudan (51), Netherlands (35), Egypt (27), U.K. (21), Brit. W. Africa (17), Germany (14).
Spirits	,,	9,217	2,697	Brit. E. Indies (1·7), Egypt (0·7).	70,788	40,448	Egypt (20), Sudan (12), Jordan (2), Canada (1), U.K. (1).	91,262	47,408	Egypt (23), Sudan (10), Singapore (3), U.K. (3), Canada (3), Jordan (2).
Carobs:										
Whole	tons	12,590	56,261	U.K. (40), Egypt (10), France (5).	2,748	51,913	Egypt (39), U.K. (8), Fr. African Territories (2), U.S.A. (1).	2,381	45,901	Egypt (42), U.S.A. (2), Switzerland (1).
Kibbled (Ground)	,,	46,561	218,052	U.K. (215), U.S.A. (2), Egypt (1).	40,398	615,073	U.K. (450), Israel (133), Egypt (27), Fr. Africa (2), U.S.A. (2).	44,480	640,429	U.K. (311), Israel (296), Egypt (25), U.S.A. (4), Malta (3).
Seed	,,	1,226	11,703	U.K. (all*).	3,788	118,712	U.K. (63), Germany (38), Italy (15), Switzerland (4).	3,260	145,830	U.K. (129), Switzerland (13), Spain (5).
Other (incl. juice)	,,	87	7,035	U.S.A. (5), U.K. (1).	953	48,683	U.K. (32), U.S.A. (9), Israel (5), Egypt (1).	581	42,889	U.S.A. (18), U.K. (15), Egypt (4), Israel (1).
Grape Juice	gallons	125,998	9,804	U.K. (9), Malta (1).	133,093	44,311	U.K. (43), Egypt (1).	496,612	146,063	U.K. (140), Malta (3), Lebanon (2), Egypt (1).
Tobacco (3)	tons	174	7,009	U.K. (6), Netherlands (0·4).	335	57,136	U.K. (22), Egypt (20), Czechoslovakia (8), U.S.A. (3).	664	120,739	U.K. (41), Egypt (29), Netherlands (12), Czechoslovakia (12), U.S.A. (11), Finland (10).
Other Food and Drink	—	...	14,057	...	...	195,295	...	...	177,215	...
Asbestos	tons	5,578	88,291	U.K. (40), Denmark (18), Sweden (8), Yugoslavia (7), India (4).	11,098	520,795	Sweden (129), Denmark (89), U.K. (74), Eire (73), Austria (47), France (32), Israel (32).	15,471	727,912	Denmark (201), Sweden (124), U.K. (116), Eire (87), Siam (71), Israel (35), Norway (33), Argentine (19).

Gypsum	tons	9,575	3,746	Egypt (2), U.K. (1), Syria (1), Hong Kong (0·5).	23,981	35,140	Arabia (11), Denmark (8), Kuwait (4), Japan (4), Finland (3), Egypt (2).	62,559	57,468	Finland (14), Arabia (8), Lebanon (7), Uruquay (7), Australia (6), China (4), Philippine Is. (4).
Terra Umbra	”	4,097	11,809	UK. (6), U.S.A. (4).	3,625	34,275	U.S.A. (14), U.K. (12), Denmark (1), Sweden (1), Netherlands (1).	7,065	63,466	U.S.A. (30), U.K. (23), Australia (1), Sweden (1), Denmark (1).
Chrome Ore	”	7,442	19,736	Netherlands (12), Belgium (8).	14,640	115,120	Germany (all).	18,150	215,260	Germany (all).
Copper Cement	”	—	—	—	2,010	96,970	Egypt (all).	685	54,800	Germany (53), Egypt (1·8).
Copper Concentrates ..	”	146,550	768,247	Germany (714), U.S.A. (54).	111,390	1,731,142	Germany (1,006), U.S.A. (725).	103,679	2,170,200	Germany (1,630), U.S.A. (541).
Copper Pyrites	”	515,303	488,593	France (141), Netherlands (131), Germany (96), Roumania (30), Belgium (30), Italy (28), U.K. (25)	77,820	287,153	Italy (all).	111,210	612,300	Germany (307), Italy (242), Netherlands (63).
Iron Pyrites	”				401,768	853,549	France (493), Czechoslovakia (191), Netherlands (59), Egypt (58), Greece (34), Italy (13).	533,501	1,507,442	France (787), Germany (186), Czechoslovakia (175), Netherlands (152), Egypt (80), Italy (74), U.K. (40), Belgium (14).
Other Minerals	—	...	114,690	...	...	1,765	...	...	42,155	...
Cotton	tons	152	6,829	U.K. (4), Greece (1·5), Palestine (1·0).	—	—	—	283	84,279	U.K. (51), Syria (26), Germany (7).
Wool	”	292	17,645	U.S.A. (15), U.K. (2).	251	42,746	Lebanon (21), U.K. (9), U.S.A. (6), Iraq (3), France (3), Italy (1).	1,107	526,821	Lebanon (186), U.K. (181), U.S.A. (104), Syria (44), Iraq (9), Italy (2)
Seed Potatoes	”	...	...	...	7,925	145,324	Greece (89), Lebanon (34), Syria (18), Persia (3).	7,258	133,888	Greece (103), Lebanon (16), Syria (11), Libya (4).
Oilseeds (4)	”	1,714	28,196	Egypt (7), U.K. (4), U.S.A. (3), Brit. E. Indies (3), France (3).	1,403	141,153	Brazil (41), U.K. (28), Egypt (20), Netherlands (15), Iraq (9), Greece (5), Belgium (4).	1,202	134,900	U.K. (58), Peru (14), Brazil (13), Belgium (8), Italy (7), France (7), Egypt (7), Iraq (2).
Hides and Skins	”	92	10,268	Czechoslovakia (4), France (3), Germany (1).	367	101,173	U.K. (25), Israel (16), Czechoslovakia (14), Italy (10), Greece (7), France (6).	324	104,279	Italy (40), Greece (16), Israel (11), U.K. (9), Netherlands (6), Czechoslovakia (5), France (5), U.S.A. (5).
Other Raw Materials, etc.	—	...	28,404	...	...	94,294	...	...	97,580	...
Artificial Teeth ..	gross	...	25,207	U.K. (19), Palestine (4), Australia (1).	68,002	86,822	U.K. (61), India (14), Egypt (3), Turkey (3), Australia (2).	86,026	109,001	U.K. (81), Israel (6), Egypt (5), Greece (4), Persia (4), Siam (2).
Buttons	”	...	9,078	U.K. (all).	637,004	87,701	U.K. (69), Finland (4), Denmark (3), Sweden (3), S. Africa (3).	1,295,559	158,767	U.K. (109), Denmark (18), Israel (6), Sweden (5), Persia (4), Finland (4), S. Africa (3).
Embroidery and Needlework.	—	...	18,056	U.K. (13), Egypt (1), Austria (1).	...	15,050	U.K. (8), U.S.A. (1), Sweden (1), Greece (1).	...	17,232	U.K. (8), Sweden (4), U.S.A. (1), Egypt (1), Greece (1).
Personal and Household Effects.	—	...	1,820	U.K. (1), Greece (0·2).	...	9,279	U.K. (4), U.S.A. (1), Greece (1), Turkey (1).	...	13,730	U.K. (4), Greece, (3), Turkey (1), U.S.A. (1).
Other Manufactures ..	—	...	8,132	...	...	51,641	...	...	45,507	...
Mules	numbers	1,015	20,372	Egypt (14), Palestine (6).	1,707	104,739	Israel (47), Egypt (38), Greece (14), Lebanon (5).	1,656	108,765	Israel (57), Egypt (41), Malta (6), Lebanon (5).
Other Animals, not for food.	—	...	4,503	Greece (2), Palestine (1), Egypt (1).	...	35,734	Greece (23), Israel (3), Syria (3), Malta (3).	...	40,006	Israel (17), Greece (14), Malta (6), Dodecanese (3), Syria (2).
	—	...	2,386,303			7,598,229			10,486,976	
Ships' Stores ..			4,622			7,690			6,368	
Total Domestic Exports			2,390,925			7,605,919			10,493,344	
Re-exports (including Ships' Stores) ..			87,331			637,370			565,695	
Total Exports			2,478,256			8,243,289			11,059,039	

(1) Mainly Kachkavàl and Kephalotyri.

(2) Including other citrus fruit, grapes, sultanas. Excluding citrus or other fruit juices.

— = Nil or negligible. ... = Not known or not yet available.

(3) Mainly unmanufactured.

(4) Mainly aniseed, cuminseed and linseed.

* = Apart from an insignificant amount.

IMPORTS AND EXPORTS ANALYSED BY COUNTRIES OF ORIGIN AND DESTINATION, 1938, 1949 AND 1950

	Total Imports (by Countries of Origin)						Total Exports (by Countries of Destination)					
	1938		1949		1950		1938		1949		1950	
	£	%	£	%	£	%	£	%	£	%	£	%
United Kingdom	727,164	32·4	4,862,511	44·2	6,299,764	46·8	594,485	24·0	1,332,484	16·2	2,226,903	20·1
Other Commonwealth :												
Australia	141,278	6·3	1,516,534	13·8	863,021	6·4	1,692	0·1	9,559	0·1	14,424	0·1
Canada	36,079	1·6	17,870	0·2	32,213	0·2	576	0·0	3,176	0·0	3,893	0·0
India(1)	121,342	5·4	220,879	2·0	372,219	2·8	8,732	0·4	23,945	0·3	28,829	0·3
Malaya (incl. Singapore)(2)	...	...	18,687	0·2	28,239	0·2	...	...	61,607	0·7	118,485	1·1
Malta	425	0·0	1,263	0·0	2,256	0·0	8,368	0·3	36,525	0·4	79,530	0·7
Palestine	28,047	1·2	—	—	—	—	57,853	2·3	—	—	—	—
Anglo-Egyptian Sudan	7,442	0·3	40,849	0·4	117,766	0·9	10,969	0·4	45,428	0·6	80,486	0·7
Other(3)	27,371	1·2	256,461	2·3	221,043	1·6	24,885	1·0	284,152	3·4	234,651	2·1
Total. Other Commonwealth	361,984	16·1	2,072,543	18·8	1,636,757	12·1	113,075	4·6	464,392	5·6	560,298	5·1
Foreign Countries :												
Arabia	36	0·0	279,334	2·5	253,501	1·9	183	0·0	34,825	0·4	24,202	0·2
Austria	18,474	0·8	78,938	0·7	178,515	1·3	1,383	0·1	57,593	0·7	20,847	0·2
Belgium	74,659	3·3	40,364	0·4	59,272	0·4	86,076	3·5	32,976	0·4	134,050	1·2
Brazil	25,824	1·1	98,853	0·9	74,907	0·6	900	0·0	42,514	0·5	15,753	0·1
Czechoslovakia	42,504	1·9	100,108	0·9	176,943	1·3	8,276	0·3	212,641	2·6	202,471	1·8
Denmark	16,815	0·7	93,112	0·8	79,840	0·6	19,188	0·8	535,901	6·5	227,530	2·1
Egypt	47,937	2·1	194,541	1·8	298,457	2·2	177,705	7·2	587,054	7·1	538,064	4·9
France	53,802	2·4	196,016	1·8	296,021	2·2	166,846	6·7	535,713	6·5	820,391	7·4
Germany	141,600	6·3	19,868	0·2	312,798	2·3	871,365	35·2	1,378,880	16·7	2,526,693	22·8
Greece	91,310	4·1	90,217	0·8	130,206	1·0	25,688	1·0	268,239	3·3	251,178	2·3
Holland	36,695	1·6	464,416	4·2	330,186	2·5	146,635	5·9	89,395	1·1	320,813	2·9
Iraq	29,393	1·3	1,442	0·0	136,509	1·0	110	0·0	55,753	0·7	19,479	0·2
Israel	—	—	53,749	0·5	56,386	0·4	—	—	780,695	9·5	980,370	8·9
Italy	62,517	2·8	552,667	5·0	770,345	5·7	35,029	1·4	341,675	4·1	395,995	3·6
Lebanon	...	...	23,713	0·2	51,756	0·4	...	...	220,160	2·7	310,458	2·8
Persia	10,175	0·5	509,757	4·6	632,230	4·7	—	—	8,521	0·1	9,415	0·1
Portugal	4,317	0·2	59,598	0·5	188,926	1·4	265	0·0	671	0·0	40	0·0
Sweden	29,675	1·3	159,344	1·4	295,743	2·2	14,422	0·6	271,851	3·3	186,123	1·7
Syria	31,503	1·4	8,733	0·1	251,682	1·9	44,253	1·8	32,490	0·4	97,493	0·9
Turkey	8,286	0·4	33,890	0·3	87,921	0·7	4,039	0·2	11,501	0·1	8,162	0·1
United States of America	89,986	4·0	671,115	6·1	657,288	4·9	88,610	3·6	771,327	9·4	733,482	6·6
Yugoslavia	28,323	1·3	54,506	0·5	56,905	0·4	8,467	0·4	124	0·0	3,564	0·0
Other(4)	313,456	13·9	293,895	2·7	161,432	1·2	66,355	2·7	155,285	1·9	430,539	3·9
Total. Foreign Countries	1,157,287	51·5	4,078,176	37·0	5,537,769	41·1	1,765,795	71·3	6,425,784	78·0	8,257,112	74·7
Ships' Stores	—	—	—	—	—	—	4,901	0·2	20,629	0·3	14,726	0·1
Grand Total	2,246,435	100·0	11,013,230	100·0	13,474,290	100·0	2,478,256	100·0	8,243,289	100·0	11,059,039	100·0

(1) With Pakistan to 1949. (2) Includes Labuan in 1938. (3) Includes Pakistan in 1950 ; includes Eire to 1949. (4) Includes Eire in 1950.

NOTE.—Failure of items to add to the totals shown is due to rounding off.

— = Nil or negligible. ... = Not known or not yet available.

IV. DEVELOPMENT

Government Activities and Plans

From 1941 until the end of March, 1946, a period which included the most difficult of the war years, expenditure on agriculture, forestry, irrigation, water supply, and public health from free grants made by His Majesty's Government under the Colonial Development and Welfare Acts totalled £600,000.

In October 1946 the Government of Cyprus published its Ten Year Development Plan for the Island. The plan was estimated to cost some £6 million over the ten-year period 1946-56, including approximately £700,000 required to complete projects begun under pre-existing schemes. Of the total, £1¾ million was to be provided by His Majesty's Government under the new Development and Welfare Act, the remainder falling to be provided by the Colonial Government out of revenue and loans.

The necessity was recognised of providing first for those projects which satisfied the more urgent needs and for which resources in the immediately foreseeable future would clearly be adequate. Provision was made for the plan to be continuously revised and for additions to be made as the financial situation permitted. A revised plan, limited to first priority projects, was approved in April, 1949 and modifications received approval in May, 1950, and subsequently.

First priority schemes are now estimated to cost £4,160,666 and for other schemes £2,179,246, making a total of £6,339,912. A further sum of £136,700 for staff training is being provided from the central and regional allocations of Colonial Development and Welfare Funds. The allocation of this expenditure between the principal heads is shown in the table below ; the figures should be interpreted with caution, however, since there are several items which might equally well be attributed elsewhere (the head "Paphos Chiftliks," for example, contains items of expenditure on land improvement, irrigation works, and roads and culverts).

DEVELOPMENT PLAN

	First Priority	*Other*	*Total*	
	£	£	£	%
Agricultural	328,915	450,400	779,315	12·3
Irrigation	770,617	30,000	800,617	12·6
Forests	490,360	94,421	584,781	9·2
Paphos Chiftliks	—	150,000	150,000	2·4
Village Development	456,350	52,614	508,964	8·0
Roads	262,000	130,401	392,401	6·2
Harbours	79,500	349,693	429,193	6·8
Civil Aviation	—	465,358	465,358	7·3
Co-operative Movement	20,000	—	20,000	0·3
Medical	895,822	108,339	1,004,161	15·9
Including Anti-Malarial Work	*354,000*	*108,339*	*462,339*	*7·3*
Geological and Geophysical Survey ..	—	46,000	46,000	0·7
Holiday Resorts	139,200	—	139,200	2·2
Education	635,502	—	635,502	10·0
Broadcasting	—	272,000	272,000	4·3
Miscellaneous	82,400	30,020	112,420	1·8
	4,160,666	2,179,246	6,339,912	100·0
Add—Staff Training	136,700	—	136,700	2·2
	4,297,366	2,179,246	6,476,612	102·2

The plan for agriculture provides funds for conversion of vineyards to improved varieties, for maintenance and expansion of nursery gardens, olive nurseries and deciduous fruit stations. Import and local purchase and upkeep of selected stud animals is allowed for. Agriculture and poultry extension work are being undertaken within the scope of the plan, and expert advice on tobacco is being made available. Development of the seed industry and sericulture are provided for, and there are major schemes devoted to soil conservation and to locust research. A wide variety of irrigation schemes has been and is being undertaken, to make the best use of all available sources of water and £425,000 is provided for the building of grain silos.

The forestry section of the plan provides for the improvement of forest roads, telephones, and buildings, for development of forest nurseries, and for the building, equipment and staffing of a new forestry school. In addition, substantial provision is made directly for the development of lowland and mountain forests and of village fuel areas.

As an addition to the original plan the Government acquired, in 1948, from the heirs of the original Turkish owners, properties known as the Paphos Chiftliks (i.e., agricultural estates). The Chiftliks comprise over 12,000 donums of which 7,700 donums are irrigated by three rivers which were the sole property of the owners of the Chiftliks and not available to owners of adjacent properties. Half of the water formerly ran to waste into the sea. Development by the Government will provide for full exploitation of the water, and convenient plots will be leased to local cultivators at reasonable rents.

Out of the £509,000 provided for village development schemes already begun or due to start before the end of 1951, almost £399,000 is for the provision of piped water supplies to those villages where such a supply has not hitherto been available. In spite of delays due to the shortage of galvanised pipes, a piped water supply had been brought to 400 of the Island's 627 villages by the end of 1951. Of the remaining £110,000 provided for village development schemes, £100,000 is for assistance to rural authorities, £8,000 is for storm drainage and £2,000 for roadside tree planting.

Of the total provided for road improvement, £112,000 is earmarked for the reconditioning of P.W.D., and commissioner's roads. £120,000 is allocated for the improvement of main village roads and £150,000 for improvement of village streets. Improvements to the Phassouri-Limassol road were completed in 1950 at a cost slightly in excess of the £9,800 provided for. Expenditure on harbours is to provide improvements at Limassol, Larnaca and Famagusta, and new dredging barges and the cost of dredging at the last two and at Paphos ; repairs have been carried out to the old mole at Paphos, and 48 feet of new quay constructed.

The item of £465,358 for civil aviation, added since the publication of the original plan, is for the improvement of facilities at Nicosia airport. Cyprus lies on or near to many actual and potential air routes over the eastern Mediterranean, and with adequate airfield facilities for all types of aircraft it may be expected that Nicosia will come into increasing use as a port of call. Air travel to and from the Island is likely to continue increasing and the Island's tourist traffic should benefit from greater ease of travel.

The sum of £20,000 is to be expended to assist in the further development of the co-operative movement.

Improvement of medical facilities is planned to include construction of a nurses' home at Nicosia and improvements to the Kyplounda Sanatorium and to the mental hospital. By far the greater part of expenditure, however, apart from that on anti-malarial work, is allocated to the extension of rural medical services (including dentistry) and rural health units, the latter being estimated to cost over £240,000. The scheme for the eradication of malaria was completed by the end of 1949 and has been described above ; an organisation to prevent reintroduction of the anopheles mosquito continues to be maintained.

The development scheme for holiday resorts comprises improvements to roads, water supply and drainage, street lighting, electric light and power, and conservancy services, with the object of increasing the Island's capacity to attract tourists. Included also under the same head is provision for improvement of roads and other amenities at the sites of the Island's ancient monuments, together with the cost of maintaining a specialised tourist department and information bureaux.

Plans for educational development currently being implemented include major items of expenditure on the construction of much needed buildings to house the women's and teachers' training colleges. Grants have been made to assist general school building which is proceeding rapidly. Expansion is taking place under the framework of the plan in the inspectorate and organising-teacher staff, as well as in the welfare staff of the probation service. A reform school is approaching completion at Lapithos at a total estimated cost of nearly £50,000. Technical training is provided for at the apprentices' training centre, the total estimated cost being £82,000 including allowances made to apprentices during their training ; of this total some £45,000 will have been expended by the end of 1952.

Added since the plan was originated, is the provision of £272,000 for establishment in the Island of a comprehensive broadcasting service. Implementation of the plan commenced in 1951 with an estimated expenditure of £38,000 on buildings, equipment, and materials. The estimated expenditure in 1952 is some £55,000 under this head and £33,000 recurrent expenditure.

The head " Miscellaneous " includes town planning and housing subsidies.

The following table summarises the progress of the development plan :—

PROGRESS OF DEVELOPMENT SCHEMES

	Total Estimated cost of Projects already started or due to start before 31 *Dec.* 1952	*Total Expenditure (Actual) to* 31 *Dec.* 1950	*Total Expenditure (Estimated) to* 31 *Dec.* 1951	*Estimated expenditure in* 1952	*Balance of Programme for succeeding years*
	£	£	£	£	£
Agriculture..	317,938	125,439	161,975	77,755	78,253
Irrigation	788,617	487,396	637,818	124,187	26,612
Forests	574,921	337,050	433,049	51,520	90,352
Paphos Chiftliks	150,000	134,201	142,390	7,610	—
Village Development ..	508,964	160,774	240,197	118,657	150,110
Roads	392,401	207,662	274,184	43,388	74,829
Harbours	429,193	21,871	31,871	222,251	175,071
Civil Aviation	465,358	90,305	202,898	77,770	184,690
Co-operative Movement ..	2,000	2,000	2,000	—	—
Medical	881,842	399,182	457,807	126,995	297,040
Including Anti-Malarial work	462,339	329,765	364,165	29,975	68,199
Geological and Geophysical Survey	46,000	1,392	10,899	6,665	28,436
Holiday Resorts	80,948	31,598	44,221	18,329	18,398
Education	519,413	122,009	157,028	109,138	253,247
Broadcasting	272,000	—	38,000	88,177	145,823
Miscellaneous	65,620	28,640	32,351	9,552	23,707
	5,495,260	2,149,479	2,866,688	1,081,994	1,546,578
Add. : Staff Training ..	136,700	74,500	85,000	345	51,355
	5,631,960	2,223,979	2,951,688	1,082,339	1,597,933
Add. : Projects due to start after 1 January, 1952 ..	844,652				844,652
	6,476,612				2,442,585

Outside the framework of the Ten-year Development Plan, progress is being made with the £4 m. Government-financed electrification scheme, the aim of which is to bring electricity to all parts of the Island. The cost of the initial stages is estimated at £2½ m. A central power station, at Dhekelia on the coast near Larnaca, is under construction and was expected to go on commercial load in 1952. The new plant is to be oil-fired and will have an initial capacity of 28,000 kW. and an ultimate capacity of 70,000 kW. Current will be carried by 66,000 v. and 11,000 v. overhead lines to Nicosia, Famagusta, Larnaca, Limassol, Kyrenia, the mining areas, and the mountain holiday resorts for disposal in bulk to municipalities and public authorities and to large industrial users. By making electric current readily available everywhere the scheme will bring special benefit to the Island's numerous existing small industries, as well as encouraging new forms of enterprise.

Other Development

Considerable exploratory and development activity has been undertaken in the post-war period by the major mining concerns in Cyprus, especially by those exploiting pyrites. Extractive capacity has been increased and the work of exploration continues. Geophysical prospecting and exploratory drilling by pyrites producers and others increased during 1950 as compared with 1949 and earlier years; although the numbers of prospecting permits in force continued to diminish slightly, estimated numbers employed on prospecting rose very considerably :—

MINERAL PROSPECTING, 1938 AND 1946-50

	1938	1946	1947	1948	1949	1950
Prospecting permits in force end of year ..	162	142	111	84	82	80
Average daily numbers employed	85	60	54	46	39	175

Capital expenditure by the Cyprus Mines Corporation on construction work and equipment, including the workmen's village at Xeros and the new acid leaching plant, amounted in 1950 to £247,373. The Hellenic Mining Co., Ltd., in 1950, in addition to intensive geophysical prospecting and exploratory drilling, expended £23,074 on new construction work, mainly additional power units at the central power station and completion of an extension to the ship-loading ropeway. Expenditure of the Cyprus Sulphur and Copper Co. in 1950 was entirely on development; the amount is not known. The Cyprus Asbestos Mines, Ltd., spent £78,259 on buildings, plant, etc., in 1950.

V. MISCELLANEOUS

Weights and Measures

CAPACITY

2 pints = 1 quart.
2⅘ quarts = 1 Cyprus litre.
4 quarts = 1 gallon.
8 gallons = 1 kile.
9 quarts = 1 kouza (liquid measure)
16 kouzas = 1 load.

WEIGHT

400 drams = 1 oke.
1 oke = 2⅘ lb.
1⅘ okes = 1 Cyprus litre.
5 okes = 1 stone.
44 okes = 1 kantar.
180 okes = 1 Aleppo kantar.
800 okes = 1 ton.

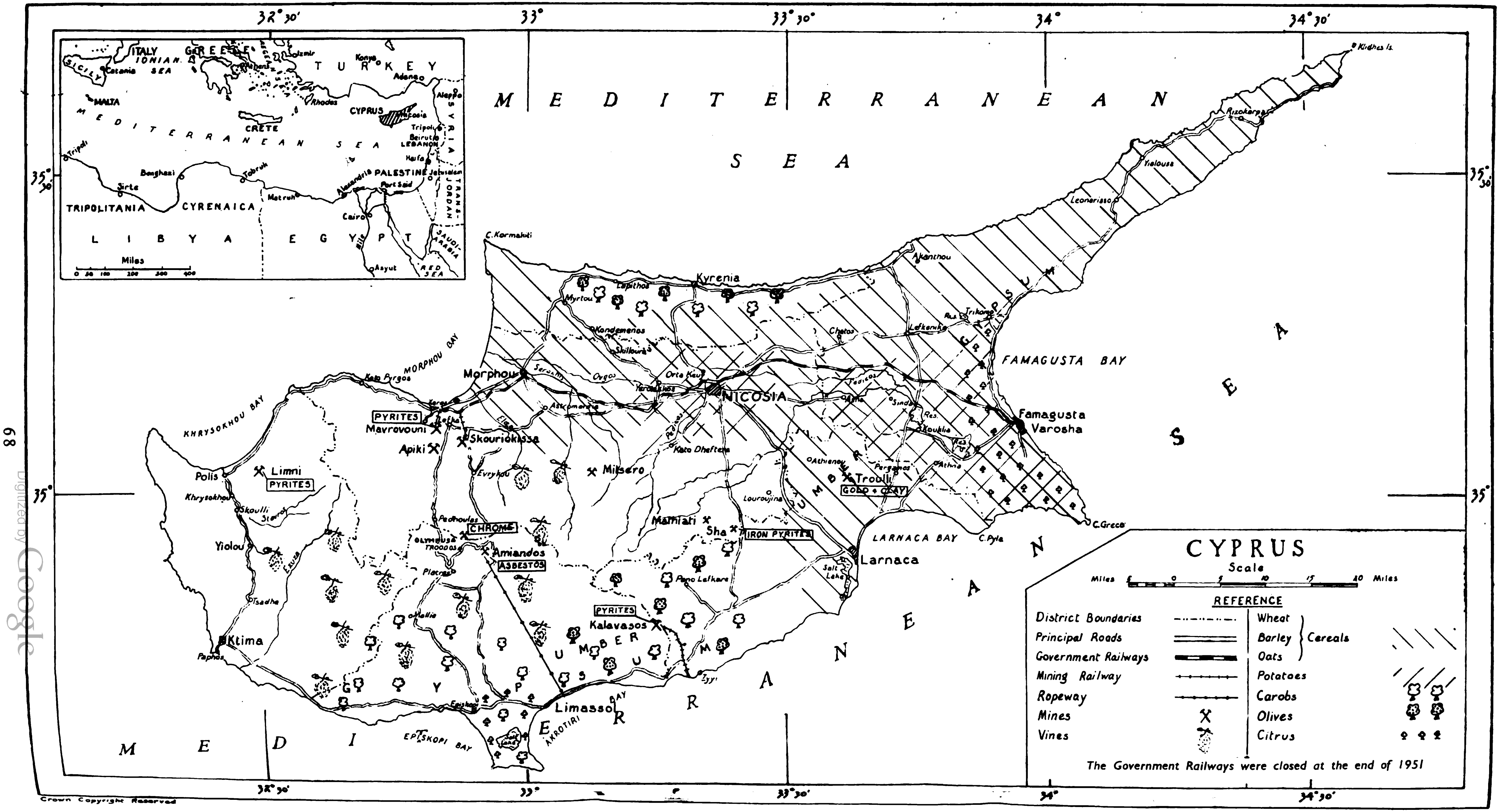
LENGTH

12 inches = 1 foot.
2 feet = 1 pic.
3 feet = 1 yard.
33 pics = 1 chain.
2,640 pics = 1 mile.

AREA

1 donum = 60 pics.
= 40 yards square.
3,025 donums = 1 acre.
1,936 donums = 1 square mile.

$\frac{40}{121}$ acre



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GIBRALTAR

I. GENERAL BACKGROUND

Geographical Features

Situated in latitude 36° 7′ and longitude 5° 21′, Gibraltar stands out boldly from the south coast of Spain as a narrow mountainous promontory running south, and lying at the Mediterranean end of the Straits of Gibraltar, a few miles east of the southernmost point of Spain. It is nearly three miles in length, has a breadth of ¾ mile, and a total area of under 2¼ square miles.

The greater part of the promontory is taken up by the Rock, a sharp ridge of limestone running north and south and rising to 1,396 ft. at its highest point. The Rock slopes steeply down to the sea on the western side and falls precipitously on the eastern side. It terminates to the north in a vertical face which drops to a low sandy isthmus half a mile wide and a mile long, connecting Gibraltar to the Spanish mainland.

A large artificial naval harbour (¾ square mile in area) has been enclosed by moles built out from the western shore, and an airstrip constructed during the war on the isthmus projects for half its length into the Bay on reclaimed land. The land area is being steadily increased by reclamation ; the Royal Naval Dockyard is entirely constructed on reclaimed ground inside the harbour.

The town, which houses the greater part of the population, is huddled immediately behind the northern end of the harbour, and the abrupt slopes of the Rock behind it are thickly covered with houses built tier upon tier to a height of 650 feet above the sea. To the south of the town, on the western slopes of the Rock, lie the Alameda gardens and the residential area known as the South and including the military areas of Windmill Hill and Europa Flats. The flat isthmus to the north of the Rock, known as North Front, is primarily a military area containing the airfield, but small sections of it have been allocated to temporary housing and to industrial and commercial buildings. On the east side of the Rock there is little flat land and the only houses are those of Catalan Bay Village.

The climate is mild. The mean minimum and mean maximum temperatures are : summer, 55° and 85° ; winter, 45° and 65°. Snow or frost is extremely rare. The prevailing winds are in winter from the west, and in summer from the east. During the summer the " Levanter " is experienced : a warm, moisture-laden breeze, striking the eastern face of the Rock and condensing in the sky above, causes a cloud-pall to hang over the city and bay ; the climate, at this period, is humid and relaxing.

The rainy season is spread over the period from September to May. The annual average rainfall is 35 inches.

Of Gibraltar's total land area—including recent reclamation—of 1,360 acres (2·12 square miles), about one-third consists of precipitous rock, steep banks of blown sand, and places difficult of access, unsuitable alike for agriculture, or for industrial or residential building construction. The Rock is of Jurassic limestone, covered on the west by shales. The water supply being exiguous, the vegetation is, in general, scanty, though the stone pine and the wild olive are well established.

Population

The civil population at the census of 3rd July, 1951, was 22,848, made up as follows :—

CIVIL POPULATION BY AGE AND SEX
(Census, 3rd July, 1951)

	Children (a)			*Adults (b)*			*Total all Ages*
	Males	*Females*	*Total*	*Males*	*Females*	*Total*	
Gibraltarians (*c*) ..	2,384	2,196	4,580	5,964	7,628	13,592	18,172
Statutory Aliens (*d*)..	623	605	1,228	1,053	905	1,958	3,186
Aliens (*e*)	34	31	65	374	1,051	1,425	1,490
	3,041	2,832	5,873	7,391	9,584	16,975	22,848

(*a*) Under 15 years.
(*b*) Over 15 years.
(*c*) Of European extraction ; descended in the main from immigrants who replaced the Spanish population which quitted the Rock after its capture in 1704. They have a right of residence by descent, as defined in the Aliens and Strangers Order.
(*d*) Consisting of British subjects, other than Gibraltarians or Armed Forces Personnel, being persons employed in Crown Service ; a small colony of Indian traders is included, as are the families of all such persons and of personnel of the Armed Forces.
(*e*) Comprising Spaniards (1,419), Portuguese (17), U.S. citizens (11), and other aliens (43)

The day population of Gibraltar is increased by the influx of Spanish workers from neighbouring towns ; average daily numbers in recent years are as follows :—

1946	7,500
1947	8,400
1948	8,300
1949	9,300
1950	8,550
1951	7,866

Spanish is the vernacular, and English the official language. The majority of Gibraltarians are bilingual.

Population statistics record a peak period of over 20,000 civilian inhabitants at the beginning of the century, followed by a decline beginning in 1908. From that date, the average aggregate population remained between 17,000 and 18,000 until the outbreak of the Spanish Civil War in 1936, when Gibraltarians who had been normally resident in the neighbouring Spanish territory entered the Colony together with a number of political refugees. In 1940, the civilian population was considerably reduced by the evacuation of 16,700 men, women and children. Repatriation of these persons commenced shortly before the end of the war and the great majority have now returned. An appreciable number elected to remain permanently in the United Kingdom.

The birth, death and infant mortality rates for the recent years have been as follows :—

VITAL STATISTICS (FIXED POPULATION), 1937-1950

Year	Birth Rate (1)	Death Rate (1)	Infant Mortality Rate (2)
1937	22·69	14·93	68·24
1938	21·07	13·73	74·38
1939	20·85	14·25	79·36
1945	34·84	8·42	32·89
1946	21·38	8·80	36·40
1947	18·75	6·56	47·24
1948	17·32	7·67	29·56
1949	18·37	8·15	34·20
1950	15·79	8·85	28·16

(1) Per 1,000 of the end-year, fixed civil population (i.e., excluding aliens).
(2) Per 1,000 live births.

It is estimated that at the present rate of increase the total number of persons with a right of residence will be 25,000 in 1960 unless meanwhile reduced by emigration.

An occupational breakdown of the population is given below in the section on Employment.

Social Amenities

Education

Educational facilities, in pre-war years, were provided almost entirely by the voluntary action of religious bodies (chiefly Roman Catholic) ; much of the assistance was unqualified.

From 1944, responsibility for the provision and supervision of education within the colony was taken over by the Colonial Government, and a co-ordinated system of primary (infant and junior) and secondary (academic commercial and technical) instituted. A new education ordinance was enacted in 1950 and in 1951 compulsory education was introduced.

The schools are staffed by members of the religious orders, and by expatriate and locally recruited lay teachers. The minimum standard required of prospective student-teachers is the School Leaving Certificate, and local students of promise are sent for further training in the United Kingdom.

There were, in 1950, 15 primary schools (ten Infants', five Junior) and six secondary schools, the latter including a commercial school for girls, the Technical and Dockyard School (opened in 1949) for boys, and the Gibraltar Grammar School for Boys. Actual school enrolment during 1950 represented 95 per cent. of the population of school age ; 1,787 children (885 boys, 902 girls) were enrolled in primary schools and 984 children (596 boys, 388 girls) were enrolled in secondary schools ; 18 girls were attending higher institutes. There were 102 teachers (79 local, 23 expatriate) of whom 13 were graduates, 21 held the Ministry of Education Certificate and 68 were uncertificated. Evening classes are held for adolescents and adults.

Health

The principal causes of death, other than those particularly associated with advancing age, are cancer and tuberculosis, the latter being also the most serious of the notifiable infectious diseases ; overcrowding remains the principal obstacle in the way of reducing the incidence of tuberculosis.

Measles, whooping cough, chicken pox, and scarlet fever are responsible for a large proportion of all cases of notifiable infectious diseases ; numbers are not usually disproportionately large, cases are mild and deaths are rare. The incidence of diphtheria has diminished almost to vanishing point in the most recent post-war years ; this is attributed largely to immunisation of small children while in the United Kingdom, and efforts are being made to overcome indifference to the similar campaign being urged in Gibraltar. Some cases of dysentery and of typhoid-enteric fevers are reported each year, but deaths are few and recovery is usually complete. Owing to absence of the anopheles mosquito, malaria is not contracted in Gibraltar.

The Colonial Hospital, with 153 beds, is the general hospital serving the civilian community and the merchant marine.

The King George V Hospital for Diseases of the Chest (64 beds) is used mainly for the treatment of pulmonary tuberculosis.

The Infectious Diseases Hospital is maintained ready for use, under the terms of the International Sanitary Convention for Maritime and Aerial Navigation, for the treatment of the major infectious diseases such as cholera, smallpox, yellow fever, and plague. It has 30 beds. Four cases were admitted in 1946 and six in 1947, all being landed from ships ; four proved to be falsely diagnosed. There were no admissions in 1948, 1949 or 1950.

The Mental Hospital (25 beds) was returned to civilian use after the war, and reconditioned during 1948 ; there were 18 patients at the end of 1949 and 24 at the end of 1950.

Other medical and hygiene services include the port health and public vaccination services, child welfare and school medical and dental services, domiciliary treatment of Government servants, free domiciliary treatment of poor persons by two part-time medical officers, and the police and prisons medical services. The Advisory Board of Health, composed of doctors representing the various medical interests in the Colony, meets at monthly intervals.

Permanent preventive campaigns are in force, aimed to restrain or diminish the numbers of malarial mosquitoes, house flies, rats, and stray dogs and cats. There is a system of sanitary and market inspection covering meat, fresh fish, milk, ice-cream, fresh fruit, and vegetables. Eating houses and cafés are similarly inspected. The water supply position makes it impossible to insist on the very highest standards of personal and general hygiene in food-preparing establishments, but supervision ensures that best use is made of the facilities which exist.

Housing

About one-third of Gibraltar's land area is unsuitable for building purposes.

The town, comprising about 100 acres, is a dense development retaining the medieval Spanish plan of narrow streets and stepped ramps. It consists for the most part of tenements, interspersed with business premises, barracks, and public buildings. The southern area is more open. The usual tenement block has three storeys and is planned round a patio or inner courtyard. Many of the flats are not self-contained, and have inadequate sanitary accommodation. Nevertheless, houses are generally clean and well cared for.

It was officially estimated, in 1946, that approximately two-thirds of the population were housed in tenements of one to three rooms, and that there were some 1,500 sub-standard dwellings.

A £2¼ million post-war permanent housing scheme at Governor's Meadow reached completion in 1951. The scheme comprises 472 family flats in seven blocks ; an additional permanent housing scheme, aimed at providing somewhat cheaper accommodation for some 127 families, is in process of construction ; 83 of these flats were completed during 1950. Temporary housing has been provided since the end of the war for a large number of families, partly in buildings converted from service use.

Social Security

There is no statutory provision for unemployment insurance or old age pensions, but the compilation of statistics on these subjects was commenced in 1946 and data are being obtained on which to base legislation.

A non-statutory Public Assistance Scheme, introduced in 1946, has been extended to cover cases of financial hardship due to temporary sickness or unemployment, in addition to relief which is granted in cash or kind to the aged and infirm. Unemployed able-bodied persons under 65 are eligible for benefit conditional upon regular registration at the Employment Exchange ; eligibility ceases in the event of refusal to accept suitable employment. The scale of benefits was increased in 1948 to provide a maximum of 50s. per week paid to the head of any one family irrespective of the number of dependants, plus a maximum rent allowance of 10s. per week. The maximum benefit payable to a single adult became 20s. per week and to a married couple 30s. per week. Dependent young persons over 16 but under 20 years of age were made eligible for 7s. 6d. per week and dependent children under 16 years of age 5s. per week.

The Department of Labour and Welfare administers two Centres in which aged or destitute persons are accommodated and fed in addition to being provided with pocket money.

At the end of 1948 there were two Friendly Societies registered in the Colony, both of many years' standing. Their combined membership was 313.

Free milk is supplied to schoolchildren between the ages of five and eight years, and cases of children in need of footwear or clothing are reported by their head teacher, for the attention of the Welfare Department. Persons in need and reported by the Medical Officer to be suffering from malnutrition are supplied with additional protective foods—e.g., milk and eggs.

Discretionary grants may be awarded to persons suffering from tuberculosis, to help cover loss of earning capacity during treatment.

Political Structure

The constitution of Gibraltar is defined in Letters Patent of 28th February, 1950, and Royal Instructions of the same date. The constitution provides for a Legislative Council consisting of the Governor, three ex officio members, two nominated members appointed by the Governor and five elected members. The Governor possesses the usual reserve powers. The Governor is also commander-in-chief and, as Gibraltar is a fortress Colony, the governorship is traditionally held by a high military officer.

The Governor is advised by an Executive Council of four ex officio members, viz., the Combatant Military Officer next in seniority after the Governor, the Colonial Secretary, the Attorney-General and the Financial Secretary, and not more than three unofficial members. The unofficial members are appointed by the Governor on instructions from the Secretary of State and unless otherwise provided in the instrument of their appointment they hold office for three years. The Governor has power to make provisional appointments, subject to confirmation by the Secretary of State.

Government officers are appointed by the Governor, appointments to the higher offices being made on the selection of the Secretary of State. The principal executive officers are the Colonial Secretary, Attorney-General, Financial Secretary, Chief Medical Officer, Director of Education, Director of Labour and Welfare, Commissioner of Police, Captain of the Port, and Commissioner of Lands and Works. On the judicial side there is a Chief Justice for the Supreme Court and a Stipendiary Magistrate for the Court of Summary Jurisdiction. In the absence of the Stipendiary Magistrate his place is usually taken by local Justices of the Peace.

Municipal affairs are in the hands of a City Council of 13 members. The Chief Medical Officer is an ex officio member. Five councillors are appointed by the Governor and must include one representative each of the Naval, Military and Air Forces, holding office during the Governor's pleasure, the others being appointed for a period of three years. Seven councillors are elected and hold office for three years. Citizens entitled to vote are British subjects not under 21 years who are not in the armed forces (other than the local defence force) and who have resided in the Colony for at least one year. Candidates for election must, in addition to having the voters' qualifications, be able to speak, read and write the English language, but are ineligible if they are servants of the City Council or (with certain exceptions) Government servants.

The City Council is responsible for fire prevention, public health, highways, water, electricity, gas, telephone service, and issue of vehicle licences, driving licences and dog licences. But hospitals, education, and the administration of the port and markets are the responsibility of the Government. The Governor has certain controlling powers in relation to the finances of the Council and the salaries of officials.

Principal Economic Legislation

General

In Gibraltar the law relating to Companies is based on the United Kingdom Companies Act, 1929. The legislation concerning Partnerships, Registration of Business Names and that affecting commercial transactions generally follows closely the pattern of corresponding statutes in the United Kingdom. Legislation peculiar to the Colony is the Alien Traders Ordinance. This restricts the trading operations of non-Gibraltarians in the Colony.

Taxation is regulated by the Revenue Ordinance, the Estate Duties Ordinance, the Stamp Duties Ordinance, the Trade Tax Ordinance and the Coffee (Special Tax) Ordinance. The present rates of Estate Duty range from 1 per cent on estates valued between £100 and £3,000 to 10 per cent on estates exceeding £50,000 in value. Estates whose values is less than £100 are exempt from duty. The provisions of the Stamp Duties Ordinance follow closely the Stamp Act, 1891, and the First Schedule thereto. Rates of duty are in most cases the same as those in force in the United Kingdom. The Trade Tax Ordinance imposes a fixed amount of tax on businesses specified in the Schedules thereto, each Schedule carrying a different amount of tax. In addition to Import and Export Duties, the Revenue Ordinance covers licences of various kinds.

Trade Tariffs

Import duties are confined to a limited range of items : alcoholic beverages, perfumed spirits, motor spirit and tobacco. There are preferential rates for imports of Commonwealth origin and reduced rates for alcoholic beverages imported in bulk. Whisky and brandy imported in bulk are liable to duty at 48s. and 30s. per gallon respectively at the full rate, and 46s. and 21s. per gallon respectively at the preferential rate. Duty on malt liquors is at the rate of 1s. per gallon at the full rate and 9d. per gallon at the preferential rate. Motor spirit carries a duty of 6d. per gallon. Cigarettes carry a duty of 1s. 6d. per lb. at the full rate and 1s. per lb. at the preferential rate, with an additional duty of 1s. 8d. per 100 cigarettes. Other manufactured tobacco is taxed at the rate of 6s. per lb. full rate and 5s. 4d. per lb. preferential rate. The duty on unmanufactured tobacco is 8d. per lb. full rate and 7d. per lb. preferential rate. Raw coffee bears a special tax of 2d. per lb. and processed coffee of 3d. per lb. There is an export tax of 6d. per ton on fuel oil.

Import control is exercised with a view to limiting imports from hard currency areas to essential requirements.

Exports are allowed under licence and subject to payment in the manner prescribed under the Control of Payments Regulations in the United Kingdom.

Labour

The employment of women, young persons and children is regulated by the Employment of Women, Young Persons and Children Ordinance of 1922, amended to give the force of law to international conventions on this subject ratified by H.M. Government and applied to Gibraltar ; under this Ordinance children under 14 years of age may not be employed in any industrial undertaking.

The Shop Hours Ordinance of 1922 limits the employment of shop assistants to a maximum period of 48 hours in any week. The Employment Exchanges and Registration Ordinance of 1949 gives statutory effect to a free public employment exchange which is administered as part of the Department of Labour and Welfare. The Registration of Trade Unions and the Rules thereof are regulated by the Trade Unions and Trades Disputes Ordinance of 1947. Legislation providing for Workmen's

Compensation and the regulation of conditions relating to health, safety and welfare in industrial undertakings was enacted in 1950 and 1951.

The systematic compilation of statistics relating to age groups and unemployment was commenced in 1946 and data on this subject are being obtained on which to base legislation providing for Old Age Pensions and Unemployment Insurance.

Land Tenure

All land in Gibraltar is Crown land. The greater part is vested in the War Department for defence purposes. Such land as remains, comprising land used by the Government, land vested in the City Council or land held on lease or as freehold by members of the civil population, together with any land which the War Department may relinquish, is administered by the Government. The principal legislation dealing with land tenure is the Land Titles Order. This order defines the conditions on which land may be held, and restricts the holding of land by aliens.

Immigration

Under the Aliens and Strangers Order no person without right of residence as defined in the Order may reside in Gibraltar without a permit. Persons with right of residence include British subjects holding office under the Crown, and their families. Other British subjects on arrival are generally granted temporary permits for a stay of one month. Owing to the acute housing shortage permits for a longer stay are granted only in special cases. Aliens require visas before entry to the Colony is permitted.

Transport and Communications

Internal Transport

The length of road open for motor traffic is five and a quarter miles in the City, four miles in the South District, and some three and a quarter miles in the North Front and Catalan Bay District, a total of 12½ miles. One-way traffic is imposed in certain of the main city streets. The upkeep of the roads is in the hands of the City Council.

There are no railways or tramways in Gibraltar.

External Transport

The entrance to the harbour is wide, open, and in deep water, with no obstructions. There are 850 feet of quay having the maximum depth of water of 15 feet 6 inches, and taking vessels up to 300 by 15 by 37 feet; the remaining wharf is suitable for small vessels and lighters. The Admiralty dry dock in H.M. Dockyard is 908 feet 5 inches by 125 feet by 38 feet 5 inches.

Port dues are payable as follows :—

Under 10 tons	£ Nil		
10– 50 tons	£ 0	3	0
50– 500 ,,	£ 3	0	0
500– 1,000 ,,	£ 5	0	0
1,000– 1,500 ,,	£ 9	0	0
1,500– 2,000 ,,	£12	0	0
2,000– 5,000 ,,	£15	0	0
5,000–10,000 ,,	£18	0	0
10,000–12,000 ,,	£19	10	0
12,000 ,,	£21	0	0

Normal peacetime shipping services ceased on the outbreak of war, when Gibraltar became a convoy assembly port and merchant shipping came under naval control. In the post-war period sea-mail and passenger services were gradually resumed. During 1950 monthly sailings to and from the United Kingdom were operated by the Orient Line and the Union Castle Line, and to and from the U.S.A. and Mediterranean ports (Palermo, Naples, Piraeus and Haifa) by the American Export Line. The Italia Line maintained continued calls at Gibraltar on its fortnightly sailings between New York, Naples, and Genoa. There was approximately one cargo vessel weekly from the United Kingdom but only a most irregular service homeward. The Bland line maintained a weekly cargo service to Tangier and introduced in 1950 a passenger and car ferry service to Tangier at first thrice weekly and then daily to the end of October. A ferry service between Gibraltar and Algeciras continued to operate six times daily.

Five thousand, six hundred and thirty-three vessels with a net tonnage of 9,318,891 called at Gibraltar in 1951, compared with 4,823 with a net tonnage of 8,210,806 in 1950 ; the majority called for bunkering (oil or coal) or repairs. There were 59 vessels on the Gibraltar register at the end of 1950, eight having been added and five removed in the course of the year.

The airfield is fully operational and night landing facilities are available. The single runway lies approximately West to East, eight feet above mean sea level, and is 1,832 yards long by 150 yards wide ; the surface is of tar-macadam. There is a seaplane alighting area, available without notice during the day though notice must be given for night use.

The service operated by British European Airways to and from the United Kingdom was increased during 1950 by stages from four times weekly to once daily. Gibraltar Airways maintained a service to Tangier four times daily in each direction during 1950, and a thrice weekly service was operated to Seville, Malaya, Granada, and Tetuan.

Posts, Telephones and Telegraphs

A daily overland service of mails to the United Kingdom and Europe was reintroduced as from 10th February, 1948, when the Franco-Spanish frontier, closed since 1st March, 1946, was reopened. The service was maintained without interruption in 1950. Sea mails to and from the United States of America are maintained twice monthly by the Italia Line and American Export Line vessels. The air-mail service to the United Kingdom has gradually improved from four times weekly to a daily service as from 22nd October, 1950 ; direct air mail services also exist to and from Madrid and Bordeaux, and daily to and from Tangier. Parcels are conveyed by sea at irregular intervals, averaging three to five times monthly ; an air parcels service is available to and from the United Kingdom.

The existing telephone system has a total of some 1,000 subscribers, which is about the maximum that existing equipment can serve. The equipment is becoming increasingly worn-out and the need for replacement correspondingly more urgent, while large numbers of prospective subscribers remain on the waiting list. It is intended to install a new and modern automatic system, to take 1,300-2,300 subscribers ; a scheme has been prepared and some preparatory work carried out. Gibraltar's telephone system is linked with that of Spain and thence with those of other European countries. Nearly five million calls were put through on the Colony's exchange during 1950.

Telegraph and cable services are available.

II. PRODUCTIVE ACTIVITIES

Agriculture and Fisheries

Gibraltar has no agriculture and little livestock. Fresh fruit, vegetables, eggs and poultry are imported daily from Spain. The Colony depends for its food supply mainly on the import of staple foods from the United Kingdom and meat from Australia.

Fish abound in the waters around Gibraltar, but hitherto little fishing has been done from the Colony, the needs of the town being mainly served by Spanish fishermen from neighbouring ports. Local methods of fishing involve the use of large permanent nets or " almadrabas " anchored off-shore in the path of the migrating fish and also of powerful lamps at night to attract the fish. Some expansion in local fishing is expected to accompany development of a canning industry, now in the experimental stage.

Minerals

Gibraltar possesses no mineral resources.

Manufactures

Local industry is mainly confined to a sardine and tunny cannery, established in mid-1950 by private enterprise and producing for export, and to the production of commodities for local consumption. This latter, which is on a small scale, includes tobacco manufacture from imported leaf, coffee roasting, baking and confectionery, and the manufacture of aerated waters. There is some brick and tile manufacture ancillary to the building industry. Tar is manufactured as a by-product of the city gas works, some being used locally and some exported.

Tourism

The pre-war tourist industry has not yet revived to any appreciable extent, as the shipping services which used to call regularly at Gibraltar have not returned to normal. The Colony derives some benefit from its attractions as a winter resort within the sterling area. Accommodation is adequate for the present flow of visitors.

Co-operative Movement

There are no co-operative societies in the Colony.

Employment and Labour Supply

Local Employment

Although preference in employment is given to Gibraltarians, the demand is such that several thousand Spaniards are employed within the Colony, of whom the majority enter and leave each day. Unemployment amongst Gibraltarians in the post-war years has been less than 0·5 per cent, while labour turnover has been at the average rate of about 25 per cent per annum.

The labour force in Gibraltar at the end of 1951 was approximately 21,000 of whom over two-thirds were Spaniards. The Service Departments, the Colonial Government and the City Council together employ over half the wage-earners in Gibraltar. The detailed composition of the labour force is as under :—

LABOUR FORCE, 31st DECEMBER, 1951

Gibraltarians :		
Males	5.000	
Females	1,140	6,140
Spaniards :		
Males	9,000	
Females	5,080	14,080
Statutory Aliens :		
U.K. Expatriates	320	
Other British Subjects	210	530
Other Aliens :		
All	30	30
		20,780

Some 8,000 were employed in Government, 5,000 in industry, 3,000 in commerce, and roughly 4,000 in domestic service. Industrial employment consisted mainly of building and construction (2,800), and stevedoring (600). Gibraltarian women were mainly in commercial undertakings and in clerical employment, whilst the majority of Spanish women were employed in domestic work and in catering services. The sardine and tunny cannery established during 1950 employed some 300 women, of whom roughly one-half were Spaniards, one-half Gibraltarian.

Industrial grade workers employed by the Service Departments, the Colonial Government and City Council work a 44-hour five-day week, which was introduced in 1947, whilst those employed in privately owned industrial undertakings in general work a 48-hour week on a five and a half day basis. In hotels, catering, and domestic service hours are longer, being generally from 50-58 hours weekly.

A unified system of basic wages and Cost-of-Living Allowances payable to industrial workers in the Colonial Government and in the Service Departments was introduced in 1947.

Some of the principal rates in force in 1950 are shown in the following table :—

WEEKLY WAGE RATES, 1950

	Adult Males		*Adult Females*	
	Min.	*Max.*	*Min.*	*Max.*
City Council	77/-	110/-	—	—
Central Government Service Departments ..	76/-	108/-	47/-	51/-
Building Contractors ..	54/-	80/-	—	—
Miscellaneous Industry ..	52/-	95/-	25/-	45/-
Distribution	40/-	100/-	20/-	50/-
Domestic and Allied Services (1)..	40/-	60/-	20/-	30/-

(1) Generally plus food and lodging.

Ship repairing is carried on at H.M. Dockyard and by Messrs Bland.

Service industries and trades include ships' chandling, bunkering, and the supply of goods and services to the Armed Forces. Laundering, motor vehicle repairing, and catering are the principal other activities.

The rates shown for employees of the City Council, Central Government, and Service Departments are those paid to Gibraltarians and include the Cost-of-Living Allowance, paid to adult male workers at the rate of 36s. per week ; the corresponding rate of Cost-of-Living Allowance paid to adult male Spanish workers is 18s. per week. The minimum rates shown for other employments are generally those paid to Spaniards which are lower than the corresponding rates for Gibraltarians. For coaling/stevedoring the standard rate of pay in 1950 was 20s. per day of eight hours, or 6s. to 10s. per ton for gang work.

Migrant Labour

The local demand for labour exceeds that which can be supplied by resident Gibraltarians and there is little inducement to migrate. Of the persons evacuated to the United Kingdom during the war, some 1,700 chose to remain there and have not returned to Gibraltar. Since the war a tendency has been observed for further migration to take place from Gibraltar to the United Kingdom ; this has been encouraged to relieve the acute local overcrowding.

Unprecedented demand for building labour during the post-war years resulted in the absorption into employment of all locally-available Gibraltarian and Spanish skilled workmen, and in addition to recruiting carpenters from the United Kingdom, it was necessary to bring carpenters from Tangier and masons and plasterers from Italy. The latter were recruited under contracts, on completion of which during 1950 and 1951 they were expected to return to their countries of origin.

Fuel and Power

Gibraltar is dependent for fuel on imports of coal and fuel oil. Gas and electricity are available throughout the Colony for domestic and industrial purposes. The gas and electricity undertakings are owned by the City Council, and use imported coal and diesel oil.

During 1951 the quantity of gas sent out from the gasworks was 121 million cubic feet, compared with 116 million cubic feet in the previous year and 106 million cubic feet in 1949. The charge for gas was increased in July 1948 from 12s. 6d. to 13s. 4d. per 1,000 cubic feet owing to the heavy increase in the price of coal, and remained at this level throughout 1951.

The existing electricity system provides an alternating current 1-phase, 2,100 volts, 76 cycles, transformed in substations to 110 and 220 volts for private consumers and street lighting. Direct current at 440 volts for power is also available. This non-standard system is in process of being changed to a standard system providing alternating current at 6,600 volts, three-phase, 50 cycles, transformed in substations to 416/240 volts. The consumer will have the choice of 416 volts, three-phase, three-wire for large power purposes and 240 volts, single phase, two-wire for lighting, small power and general domestic purposes. The change-over is expected to be substantially complete by 1953.

The current charges for electricity in 1951 were as follows :—

Flat Rates :	
Lighting ..	.. 7¾d. per unit.
Power ..	.. 4¾d. per unit.
Inclusive Tariff :	
Primary Rate	.. 7¾d. per unit.
Secondary Rate	.. 2d. per unit.
Tertiary Rate	.. 1½ per unit.
Industrial Tariff :	
Primary Rate	.. £12 p.a., per kva. of maximum demand.
Secondary Rate	.. 1¼d. per unit for all units consumed.

H.M. Dockyard provides its own electricity and there is a small War Department system.

Water Supply

Two classes of water are supplied by the City Council of Gibraltar—potable water and brackish water.

Potable water is obtained from rainfall and from shallow wells sunk in the isthmus between the Rock and the Spanish mainland.

The rain water is collected upon specially prepared catchment areas which cover about 38 acres on the eastern and western sides of the Rock. A system of channels and conduits conveys this water by gravitation into ten storage reservoirs excavated in the heart of the Rock and into a service reservoir sited near the old Moorish Castle. These reservoirs have a total storage capacity of about 14 million gallons and are situated at levels varying between 200 and 400 feet above sea level. The total rainfall during the rain year 1951 as registered by the City Council was 33·7 inches, yielding 21¼ million gallons, compared with 18·39 inches and 9 million gallons in the previous year.

The water from the potable water wells, which are approximately at sea level, is treated with ammonia and chlorine gas and pumped into the reservoirs mentioned above. This source of supply yields about 30 million gallons per annum. With a view to augmenting the supply and improving the quality of water, pumping arrangements have been improved and a base exchange water softening plant installed ; the work was completed in March 1949.

A network of distribution pipes conveys the water from the Council's reservoirs to houses, wharves, public supply points, etc.

The price charged for potable water varies from 5d. to 1s. 3d. per 100 gallons. In consequence of increased costs the charge to shipping was raised in July 1949 from 2s. 6d. per 100 gallons to 9s. per ton.

The Admiralty and the War Department also have rain water collecting areas, reservoirs and distilling plants.

Brackish water is obtained from a number of wells in the isthmus and is elevated by pumping to service reservoirs. An intercommunicating system of distributing pipes provides a constant supply to every house. The Council also pump brackish water for military purposes to War Department reservoirs in the Upper Rock.

This water is saline, the amount of salinity varying with the seasons and reaching its maximum towards the end of the summer. It is used for fire-fighting, road watering, flushing and general sanitary purposes. The quantity of this class of water now consumed is much greater than the yield of the wells and the balance has to be made up with water drawn from the sea. During the year 1951 the total quantity supplied amounted to 356 million gallons, some 47 million gallons less than in the previous year.

A Brackish Water Rate is levied in respect of the supply of this water, except for supplies to the War Department, charged on a per capita basis, and supplies to the other Services and for business purposes, which are metered and charged for at the rate of 4d. per 100 gallons.

III. FINANCE AND TRADE

Public Finance

Central Government

In the decade before the outbreak of war the average revenue of the Government was slightly below £200,000 per annum, while Expenditure, excluding transfers to Reserve Fund, was on the average about £20,000 per annum less.

The war years saw a substantial improvement in the financial position and the Government was able out of its own resources, including the Reserve Fund, to make available to H.M. Government interest-free loans amounting to £850,000. This sum was repaid in 1947 and is reflected in the abnormal Revenue figure for that year. The surpluses accruing during the war were due on the one hand to expansion of Revenue, particularly under the Customs head as a result of increases in Service establishments, and on the other to a contraction of expenditure brought about by the evacuation of the civil population in 1940. With the commencement of repatriation in 1944 a period of resettlement and reconstruction began and this is reflected in the rise in expenditure, particularly on social services. It was apparent before the close of 1945 that the Colony was about to enter on a period when the war-time trend would be reversed.

The General Revenue Balance at 31st December, 1950, was £549,746, as compared with £234,358 on 31st December, 1938, when there was also £200,000 in the Reserve Fund.

The Public Debt at 31st December, 1950, consisted of the £1,100,000 3 per cent Debenture Loan 1967-72 and the £400,000 3½ per cent Debenture Loan 1970-75. The outstanding balance of the war-time interest-free loan amounted to £128 10s. Investments of the Sinking Funds at 31st December, 1950, stood at 77,844.

Revenue and expenditure from 1929 are shown in the following table :—

PUBLIC REVENUE AND EXPENDITURE, 1929-52

	Revenue	*Expenditure*	*Surplus or Deficit*
	£	£	£
1929 ..	146,245	165,705	–19,460
1930 ..	146,847	169,182	–22,335
1931 ..	151,415	178,955	–27,540
1932 ..	239,209	151,038	88,171
1933 ..	195,401	166,059	29,342
1934 ..	245,858	275,644(*a*)	–29,786
1935 ..	216,232	182,296	33,936
1936 ..	211,478	179,864	31,614
1937 ..	207,984	196,179	11,805
1938 ..	207,628	199,725	7,903
1939 ..	203,973	275,055	–71,082
1940 ..	328,486	274,730	53,756
1941 ..	376,481	167,614	208,867
1942 ..	610,767(*b*)	792,543(*c*)	–181,776
1943 ..	505,603	313,316(*d*)	192,287
1944 ..	532,067	433,348(*e*)	98,719
1945 ..	510,009	469,191	40,818
1946 ..	545,325	751,630	–206,305
1947 ..	1,389,375(*f*)	912,856	476,519
1948 ..	681,580	652,756	28,824
1949 ..	1,021,270	1,236,565	–215,295
1950 ..	820,557	937,059	–116,502
1951* ..	908,922	849,236	59,686
1952† ..	879,127	922,950	–43,823

* = Revised estimates. † = Estimates.

(*a*) Includes £100,000 transferred to Reserve Fund.

(*b*) Includes £200,000 transferred from Reserve Fund.

(*c*) Includes £600,000 interest-free loan to H.M. Government.

(*d*) Includes £100,000 interest-free loan to H.M. Government.

(*e*) Includes £150,000 interest-free loan to H.M. Government.

(*f*) Includes £850,000 repaid by H.M. Government.

In the following tables, Gibraltar's Revenue and Expenditure are analysed under the principal heads for 1938, and 1948-51 :—

REVENUE, 1938 AND 1948-51

	1938		1948		1949		1950		1951*	
	£	%	£	%	£	%	£	%	£	%
Customs	68,334	32·9	256,259	37·6	262,173	25·7	270,640	33·0	264,000	32·2
Port Dues, etc.	20,725	9·8	37,868	5·6	41,145	4·0	36,473	4·4	36,000	4·4
Excise, Licences, etc.	10,833	5·2	47,828	7·0	105,316	10·3	126,796	15·5	133,000	16·2
Fees of Court, etc.	31,414	15·1	74,907	11·0	83,294	8·2	90,510	11·0	84,696	10·3
Post Office	36,738	17·7	56,234	8·3	69,395	6·8	81,854	10·0	72,980	8·9
Rents	18,883	9·1	40,923	6·0	45,637	4·5	56,790	6·9	65,300	8·0
Interest	15,994	7·7	46,300	6·8	28,786	2·8	22,788	2·8	23,000	2·8
Lottery	—	—	64,189	9·4	81,000	7·9	80,316	9·8	80,000	9·8
Miscellaneous	4,592	2·2	56,897	8·3	27,536	2·7	18,512	2·2	15,905	1·9
Repayment of Loans	115	0·1	175	0·0	180	0·0	186	0·0	10,400	1·3
C.D. and W. Grants	—	—	—	—	276,808	27·1	35,692	4·4	33,700	4·1
	207,628	100·0	681,580	100·0	1,021,270	100·0	850,557	100·0	818,981	100·0

* = Approved estimates.

EXPENDITURE, 1938 AND 1948-51

	1938		1948		1949		1950		1951*	
	£	%	£	%	£	%	£	%	£	%
Debt Service	—	—	41,819	6·4	41,819	3·4	80,793	8·6	92,200	9·6
Pensions	17,516	8·8	20,133	3·1	21,931	1·8	27,012	2·9	28,700	3·0
Law and Order (1)	28,453	14·2	91,787	14·1	92,961	7·5	91,782	9·8	94,644	9·9
Administration (2)	28,043	14·0	70,334	10·8	64,689	5·2	63,727	6·8	67,208	7·0
Post Office	18,268	9·1	29,236	4·5	36,334	2·9	59,357	6·3	54,596	5·7
Labour and Welfare	—	—	57,266	8·8	43,288	3·5	40,657	4·3	42,144	4·4
Education	11,369	5·7	47,565	7·3	47,301	3·8	48,508	5·2	56,500	5·9
Medical and Health	25,303	12·7	84,620	13·0	90,953	7·4	93,845	10·1	99,034	10·4
Public Works	38,896	19·5	118,439	18·1	663,111	53·6	188,658	20·1	216,715	22·7
Land and Works	5,250	2·6	22,919	3·5	14,367	1·2	19,072	2·1	18,184	1·9
Port	10,545	5·3	15,424	2·4	26,846	2·2	14,526	1·5	14,919	1·6
Miscellaneous (3)	16,082	8·1	53,213	8·2	78,605	6·4	82,121	8·8	71,196	7·4
Loans	—	—	—	—	14,360	1·2	127,000	13·5	100,000	10·5
	199,725	100·0	652,756	100·0	1,236,565	100·0	937,059	100·0	956,040	100·0

* = Approved estimates.

(1) Includes Judiciary, Law Officers, Police and Prison.

(2) Includes Audit, Governor, Legislative and Executive Councils, Revenue, Secretariat, and Supplies Control.

(3) Includes Cemetery, Ecclesiastical, Markets, Town Planning and Miscellaneous Services.

Taxation is mainly indirect ; there is no income tax. An Income Tax Ordinance was enacted in 1952 but will not come into force until 1953. The principal heads of taxation and the actual or estimated yield from each is given below for the years 1938 and 1948-51 :—

PRINCIPAL FORMS OF TAX, AND YIELDS, 1938 AND 1948-51

	1938	1948	1949	1950	1951
	£	£	£	£	£
Customs (Import Duties)	68,334	256,259	262,173	270,640	341,547
Fuel Oil Tax	—	6,507	9,648	6,864	10,186
Coffee Tax	—	—	24,946	55,899	50,066
Trade Taxes	—	10,863	11,079	36,190	40,067
Licences	6,574	10,146	11,212	11,765	11,272
Estate Duty	726	10,714	35,905	9,159	12,444
Stamp Duties	2,927	4,589	7,866	4,069	6,790
	78,561	299,078	362,829	394,586	472,372

Particulars of the rates, etc., of Customs duties and of Estate and Stamp Duties are given under the appropriate subheads of the section on Economic Legislation, above.

Local Government

The only local authority in the Colony is the City Council of Gibraltar, which is responsible for highways, sanitation, public health, the fire service, and public utilities—electricity, gas, water, and telephones. The principal source of revenue is the General Sanitary Purposes Rate, which was 3s. 10d. in the £ in 1948 and 1949, and 5s. 6d. in the £ in 1950 and 1951. Revenue and

Expenditure are analysed below under the principal heads for the years 1938 and 1948-51 :—

CITY REVENUE, 1938 AND 1948-51

	1938		1948		1949		1950		1951†	
	£	%	£	%	£	%	£	%	£	%
General Rate	68,836	49·6	84,593	27·1	105,015	32·1	147,084	37·7	149,219	36·7
Fire Services			17,510	5·6	1,101	0·3	1,295	0·3		
Housing			600	0·2	613	0·2	636	0·2	636	0·2
Sanitary Water	14,549	10·5	27,786	8·9	28,110	8·6	27,484	7·1	27,675	6·8
Potable Water	13,114	9·5	32,001	10·2	26,276	8·0	29,152	7·5	27,902	6·9
Gas	—	—	65,478	20·9	75,972	23·2	87,106	22·4	91,863	22·6
Electricity	35,439	25·5	74,488	23·8	80,662	24·6	84,684	21·7	85,099	20·9
Telephones	6,793	4·9	10,124	3·2	9,485	2·9	12,188	3·1	12,442	3·1
General Revenue Account (1)	—	—	—	—	—	—	—	—	11,774	2·9
Total	138,731	100·0	312,580	100·0	327,234	100·0	389,629	100·0	406,610	100·0

†=Estimates. (1) Drawings on accumulated balances.

CITY EXPENDITURE 1938 AND 1948-51

	1938		1948		1949		1950		1951†	
	£	%	£	%	£	%	£	%	£	%
General Rate Account :										
Highways	89,149	—	28,319	9·2	29,879	9·0	31,625	8·4	32,545	8·1
Fire Service		—	—	—	—	—	—	—	19,184	4·8
Sanitation		70·6	31,068	10·0	32,985	10·0	55,412	9·4	36,815	9·2
Public Health		—	4,807	1·6	5,132	1·5	5,316	1·4	5,570	1·4
Establishment and Misc.		—	37,569	12·1	38,240	11·5	43,574	11·6	47,576	11·9
Fire Service	...	...	19,354	6·3	20,562	6·2	21,654	5·8	—	—
Housing	...	...	697	0·2	725	0·2	769	0·2	769	0·2
Sanitary Water	...	...	23,763	7·7	25,113	7·6	25,482	6·8	27,831	6·9
Potable Water	...	...	24,599	7·9	29,642	8·9	29,124	7·7	30,873	7·7
Gas	—	—	60,478	19·5	69,452	21·0	85,571	22·8	90,662	22·6
Electricity	31,441	24·9	69,050	22·3	70,243	21·2	87,070	23·2	96,873	24·2
Telephones	5,645	4·5	9,745	3·1	9,337	2·8	10,400	2·8	12,034	3·0
Total		100·0	309,449	100·0		100·0		100·0	400,732	100·0

† = Estimates. ... = not shown separately.

Liabilities on Loan Account at 31st December, 1950, amounted to £322,653, the General Revenue Balance at that date was £100,012.

An extensive scheme of development and modernisation of the Electricity Undertaking is in progress and other improvements, including a new telephone exchange are planned.

Currency and Banking

The legal tender of the Colony is composed of Gibraltar Government currency notes of £5, £1 and 10s. denominations and United Kingdom silver, copper and cupro-nickel coinage. The note circulation contracted after the end of the war but subsequently rose.

NOTE CIRCULATION, 1938 AND 1947-50

31st December, 1938	£225,000
,, ,, 1947	816,515
,, ,, 1948	786,515
,, ,, 1949	761,515
,, ,, 1950	916,515
,, ,, 1951	946,515

The following banks operate in the Colony :—

- Barclays Bank (D.C. & O.).
- The Credit Foncier d'Algerie et de Tunisie.
- Galliano's Bank.

The total of deposits in the Government Savings Bank have risen as follows in recent years :—

SAVINGS BANK DEPOSITS, 1938 AND 1946-50

	£
31st December, 1938	313,686
,, ,, 1946	942,585
,, ,, 1947	960,387
,, ,, 1948	575,669
,, ,, 1949	992,813
,, ,, 1950	1,022,885
,, ,, 1951	1,051,311

Private Investment

At 30th April, 1949, the number of companies incorporated in Gibraltar was 122, with total nominal capital of £1,117,289 and issued capital of £797,370. Twenty-three of these companies, with total issued capital of £44,300, were either owned or controlled by non-residents. In addition, 28 companies incorporated elsewhere had either branches or their principal place of business in Gibraltar.

There are no Building Societies in the Colony. There have been no bankruptcies for many years.

Standard and Cost of Living

Consumption patterns in Gibraltar have been the subject of three inquiries, carried out in 1939, 1944, and 1946, all aimed at ascertaining the appropriate weights to be used in compiling a Cost of Living or Retail Prices Index. The patterns studied related to a " typical " family consisting of an adult unskilled worker with a wife and family of three dependent children under 15 years of age. The proportionate expenditure of such a family on the principal categories of consumption goods and services was found to be approximately as follows :—

WORKING-CLASS FAMILY EXPENDITURE, 1939, 1944 AND 1946

	1939	1944	1946
Food	55·6	55·6	55·9
Fuel and Light	5·8	6·7	6·3
Clothing	13·4	13·3	12·5
Rent	15·3	16·6	16·1
Sundries	9·9	7·8	9·2
	100·0	100·0	100·0

As a result of its inquiries the 1939 Committee concluded that there had been little change in the cost of living between 1931 and July, 1939. Cost of living changes between 1939 and 1951, calculated by linking together the series based on the three sets of weights shown above, and expressed on the basis July, 1939 = 100, are as follows :—

COST-OF-LIVING INDEX, 1939-51

	March	*June*	*September*	*December*		*March*	*June*	*September*	*December*
1939	—	—	105	112	1945	185	183	180	177
1940	120	127	135	144	1946	172	170	170	174
1941	153	161	170	180	1947	172	180	178	185
1942	192	200	206	209	1948	186	188	185	185
1943	209	209	206	203	1949	184	184	184	188
1944	199	195	192	188	1950	198	197	198	201
					1951	205	215		

Cost-of-Living Allowances tied to the Cost-of-Living Index, are paid to industrial-grade workers ; these have amounted since 1947 to some 80 per cent of basic wages.

A new inquiry was instituted in 1951 into the method of compilation of the index and into the family budgets on which it is based, with a view to a complete revision taking fuller account of post-war consumption patterns.

External Trade

Largely by reason of its free-port tradition, statistics of Gibraltar's external trade in the usually accepted sense are almost non-existent.

Virtually all foodstuffs are imported, mainly from the United Kingdom ; meat is imported from Australia, and fish, fruit and vegetables from Spain. Outward traffic consists essentially of re-exports, mainly in the form of bunkers and ships' stores. There is a steady outward flow of consumer goods also, purchased by the alien workers who enter daily and by the crews of vessels calling at the port.

The approximate composition of imports and exports in recent years, as revealed by the analysis of records of import and export licences issued, and by ships' manifests, is shown in the tables below :—

IMPORTS 1948-50

Commodity	*Unit of Quantity*	1948		1949		1950	
		Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
			£		£		£
Cheese	tons	162	30,300	138	36,500	155	40,000
Coffee	,,	2,549	265,455	4,234	508,500	2,745	825,000
Cooking Oil	,,	332	47,334	332	49,000	335	49,500
Flour	,,	4,779	114,535	5,890	217,500	5,550	235,700
Margarine	,,	125	18,750	215	33,500	196	31,500
Meat (Frozen)	,,	1,426	109,530	1,372	98,000	1,165	114,000
Milk (Tinned)	,,	855	111,500	850	112,000	750	101,200
Potatoes	,,	2,800	70,000	3,000	75,000	3,200	80,000
Sugar	,,	1,100	49,000	1,200	54,000	1,372	61,700
Fresh Fish	,,	450	90,000	400	40,000	350	35,000
Fresh Vegetables and Fruits	,,	5,000	194,000	6,000	180,000	6,000	180,000
Other Foodstuffs	,,	2,595	158,672	2,712	170,500	3,460	217,900
Malt	gals.	278,423	139,211	322,241	145,008	364,599	164,069
Wine	,,	51,409	69,326	40,548	55,077	71,671	97,353
Spirits	,,	23,265	50,223	27,718	46,015	30,448	51,640
Cigarettes	tons	293	255,647	313	291,859	302	325,597
Other Manufactured Tobacco	,,	1	2,553	5	7,331	5	8,257
Unmanufactured Tobacco	,,	857	119,962	1,100	154,055	1,528	213,989
Coal and Charcoal	,,	294,000	1,200,000	305,350	1,423,000	208,120	932,100
Kerosene	,,	420	7,400	529	10,000	371	6,000
Gasolene	gals.	810,449	74,292	...	...	...	...
Petrol (other) and Lubricants	tons	3,150	53,500	3,518	70,000	4,470	137,300
Building Materials	,,	3,000	98,000	5,000	200,000	4,306	172,200
Cement	,,	2,800	18,250	7,000	50,000	5,200	29,400
Clothing and Household Linen	,,	1,700	304,320	1,600	300,000	3,377	632,500
Footwear	,,	500	50,000	520	70,000	391	52,600
Marine Stores	,,	600	150,000	300	155,000	91	46,700
Motor Vehicles	,,	450	200,000	350	210,000	448	268,400
Soap	,,	360	27,200	360	27,500	380	29,500
Miscellaneous Manufactures	...	...	317,140	...	432,339	...	903,828
		...	4,396,100	...	5,221,684	...	6,042,933

EXPORTS 1948-50

	Unit of Quantity	1948		1949		1950	
		Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
			£		£		£
Malt	gals.	2,485	1,119	2,549	1,147	1,440	648
Wine	,,	25,048	34,024	20,279	27,545	45,271	61,493
Spirits	,,	14,008	22,944	17,036	27,450	18,718	33,302
Cigarettes	tons	114	95,329	191	178,544	216	248,416
Other Manufactured Tobacco (1)	,,	2	1,686	41	33,200	21	17,736
Gasolene	gals.	...	...	18,387	1,685	28,840	3,485
Fuel Oil	tons	...	...	385,902	1,929,510	242,367	1,211,830
		...	155,102	...	2,199,081	...	1,576,910

... = not recorded — = nil or negligible.

(1) Includes chopped, pressed and packed tobacco.

The above figures of imports and exports are incomplete and the totals should not therefore be taken as representing the value of all imports into or exports and re-exports from Gibraltar. The large import surplus shown, however, reflects the importance of invisible earnings on the export side, mainly services connected with shipping and defence.

IV. DEVELOPMENT

Government Activities and Plans

Gibraltar has no Ten-Year Plan of Development. Since the war the Government has concentrated on an extensive housing programme to provide accommodation to enable the evacuees to return, and to relieve the serious overcrowding in the Colony.

Temporary or semi-permanent accommodation has been provided for over 700 families, partly in Nissen huts, partly in one-storey buildings of light construction, and partly in converted buildings of all kinds. The City Council has constructed some 400 of these houses for the Government, and the Lands and Works Department over 300.

Large numbers of permanent buildings have been constructed since the end of the war. Eighteen semi-detached houses were built by the City Council for the Government and were completed in early 1948 ; also completed in early 1948 were six quarters for senior officials built by the Lands and Works Department. The £2½ million permanent housing scheme at Governor's Meadow, comprising 472 family flats in seven blocks, reached completion in early 1951. Eighty-three flats in a separate scheme to provide rather cheaper accommodation were completed in 1950 and 44 in 1951. Altogether 838 flats have been constructed by the government since the end of the war.

Suitable sites for either residential or industrial construction are severely limited, and scope for further development is correspondingly restricted.

Other Development

Where land is a prerequisite to an industrial or commercial enterprise, the severely restricted area within the Colony available for civilian purposes will always tend to limit development. But development by private enterprise now in progress or contemplated includes a factory canning sardines and tunny for export, and a factory for the supply of ice to shipping and the town.

FIJI[*]

I. GENERAL BACKGROUND

Geographical Features

The islands comprising the Colony of Fiji are situated in the South Western Pacific between longitude 177° E and 178° W, and latitude 16° S and 20° S.

The land area of the Colony is 7,040 square miles spread over some 300 islands of which about 100 are inhabited. The main islands and groups are :—

Viti Levu	4,010 square miles
Vanua Levu	2,140 „ „
Taveuni	168 „ „
Kandavu	158 „ „
Lau Group	191 „ „
Loma-i-Viti Group	159 „ „
Yasawa Group	56 „ „
Rotuma	18 „ „
Other islands	140 „ „
	7,040 „ „

Suva, the capital of the Colony and its largest town, is situated on a peninsula in the S.E. corner of Viti Levu. Owing to its fine harbour and central position it has become the most important port in the south-west Pacific islands and is a regular port of call for the main international shipping lines operating between Australia and New Zealand and the Pacific coast of North America. It is also an occasional port of call for shipping en route between England and New Zealand via Panama.

Mountain ranges of moderate height lie athwart the path of the prevailing winds and, in consequence, all of the large islands show a marked difference between their windward and leeward sides. The windward slopes enjoy a copious rainfall, well distributed throughout the year. While the flat lands lie deep in grass, the remainder of the windward slopes are clothed with a dense growth of rain forest, broken only by cultivated areas. The leeward areas have well-defined wet and dry seasons, most of the rain falling between the months of December and March. In these areas, the hillsides are covered with grass and reeds, with a few scattered shrubs and hardy trees ; patches of forest occur only on high peaks and in well-watered gullies.

The climate of Fiji is governed by the marginal position that the islands occupy within the tropics, and by the vast expanse of ocean with which they are surrounded. They enjoy all the advantages of a tropical climate, without extremes of heat and humidity. The effect of the sea is to moderate the temperature, and since wind from any direction comes from the sea, the breeze is always cool and pleasant and only on calm days are heat and humidity oppressive.

The mean diurnal range of temperature in Suva is 11·2° F., with monthly variations from 11·9° F. in February and 10·4° F. in May. The mean daily grass minimum temperature is 69·2° F. over the year and varies from 72·8° F. in February to 68·4° F. in July ; the extreme lowest, 52° F., occurred in September, 1930.

The prevailing winds are the trades, but in this area they are easterly rather than south-easterly, and neither so strong nor so constant as they are farther east. During the hot season from December to March, the equatorial zone of calms and light variable winds advances south with the sun and passes over Fiji, often resulting in northerly monsoonal winds, usually with heavy rains. At Suva, where conditions are typical of the windward coasts, the annual average rainfall is about 123 inches distributed throughout the year : on the leeward coasts annual averages vary from 70 to 90 inches according to locality, but most of this rain falls during the four months of the wet season. The following table shows monthly average rainfall in Suva, which lies in the path of the trade winds, Lautoka which is sheltered from the trades by the mountain ranges, and Lambasa on the leeward coast of Vanua Levu.

MONTHLY AVERAGE RAINFALL

Month	*Suva*	*Lautoka*	*Lambasa*
	Normal Rainfall	*Normal Rainfall*	*Normal Rainfall*
	Inches	Inches	Inches
January	11·66	10·06	12·25
February	11·66	11·85	14·72
March	15·02	12·52	14·23
April	13·20	6·65	8·50
May	11·45	4·47	5·27
June	10·80	2·18	2·09
July	5·45	1·84	1·84
August	8·10	2·34	2·30
September	8·02	3·13	2·94
October	9·00	3·11	4·13
November	10·23	4·47	6·62
December	12·82	7·50	10·35
Year	122·96	70·19	85·73

Although there are variations in total rainfall, droughts are rare and it is unusual for main crops to be lost from this cause. The north-west coast is the only area in which lack of rain is an occasional problem. Sugar and rice production in this area is sometimes reduced, but there have never been disastrous losses. Excessive rainfall is a more serious difficulty. In general, the whole of the river system in the Colony is capable of carrying heavy rain, but, at times, the downpours may be sufficiently intense to cause flooding and damage to crops, particularly native food crops. The most serious floods in the Colony's history have been associated with hurricanes. On an average there are two severe cyclonic storms each year. Usually only a small part of the group is affected, while the remainder of the group experiences a gale or only a strong wind. Hurricanes severe enough and of sufficient extent to cause damage throughout the group are rare.

Severe hurricanes in recent years, which have caused considerable damage in various parts of the group, have occurred as follows :—

Occurrence of Hurricanes

Date

December, 1929
November, 1930
February, 1931
January, 1936

Date

January, 1939
February, 1941
April, 1941
December, 1948
January, 1952

Flooding caused by hurricanes occurs only in the larger islands but severe damage to standing crops and coconut plantations also results from the force of wind and rain.

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[*] N.B.—Except where expressly stated the sign £ means £Fijian which is exchangeable with £sterling at the rate of £Fijian 111 = £100 sterling.

Population

The growth of the population since 1881 is shown in the following table. With the exception of a fifteen year period between the census of 1921 and 1936 a decennial census has been taken since 1881.

GROWTH OF POPULATION, 1881-1951

Year	*Fijian*			*Indian*			*Other*			*Total*
	Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*	
1881 ..	60,899	53,849	114,748	388	200	588	9,114	3,036	12,150	127,486
1891 ..	56,445	49,355	105,800	4,998	2,470	7,468	4,924	2,988	7,912	121,180
1901 ..	50,357	44,040	94,397	11,353	5,752	17,105	5,164	3,458	8,622	120,124
1911 ..	46,110	40,986	87,096	26,073	14,213	40,286	7,825	4,334	12,159	139,541
1921 ..	44,022	40,453	84,475	37,015	23,619	60,634	7,427	4,730	12,157	157,266
1936 ..	49,869	47,782	97,651	48,246	36,756	85,002	9,079	6,647	15,726	198,379
1946 ..	59,558	57,930	117,488	64,816	55,247	120,063	12,357	9,730	22,087	259,638
1949* ..	64,320	62,330	126,650	71,526	62,415	133,941	13,870	10,494	24,364	284,955
1950* ..	69,915	63,981	129,896	73,704	64,721	138,425	14,494	10,949	25,443	293,764
1951* ..	67,506	65,383	132,889	76,258	67,074	143,332	14,626	11,111	25,738	301,959

* Estimated from registration of births and deaths.

Apart from Suva and its suburbs with a population of 25,395 at the 1946 census there are no large concentrations of population. The next largest concentration is found at Vatukoula (population 3,457 in 1946), where the entire population is dependent upon the gold-mining industry. The remaining town-dwelling population, 10,675, is spread over nine small centres ranging in size from Lautoka, 2,225, to Tavua, 444. The total town-dwelling population was, therefore, 39,527 in a total population of 259,638 in 1946. There is a marked concentration of Fijians in the copra producing areas, and Indians in the sugar districts. The Indians are also very much in the majority in town areas, where they form the main trading group.

The advent of the Indian population was due to economic conditions in the early days of settlement and development of the Colony. The Fijian people were not suitable as a regular labour force on plantations, and from earliest times it was necessary to rely upon immigrant labour. Originally these immigrants were from the neighbouring Pacific islands, but in 1879 a regular policy of recruitment from India was commenced through an indenture system under which indentured labourers were required to serve a period of five years on the estates and, after a further period of five years' residence in the Colony were entitled to a free passage back to India. The majority of these immigrants did not exercise their right of return and formed the basis of the present Indian population. Immigration under the indenture system ceased in 1916. The subsequent high rise in the Indian population, which now outnumbers the Fijians, is due to the higher rate of natural increase. In 1950 the Fijian crude birth rate was 37·11 per thousand compared with the Indian 42·49 per thousand; the Fijian death rate 12·48 per thousand compared with the Indian 10·17 per thousand; and the Fijian gross reproduction rate 2·21 compared with 3·0 for the Indian population. The present, and rapidly increasing, preponderance of the Indian population is a fact which must have a profound effect on the future economic and social development of the colony.

The distribution of Fijians, Indians and others by sex and quinquennial age groups for the censal year 1946 is shown in the following table, in which the preponderance of Indians and a more equal balance between sexes in the lower age groups will be noted :—

AGE AND SEX DISTRIBUTION OF THE POPULATION, 1946

Age Group	*Fijians*		*Indians*		*Other*		*Total*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
0- 4	9,150	8,698	11,474	11,566	1,720	1,583	22,344	21,847
5- 9	8,155	7,840	10,330	10,214	1,420	1,426	19,905	19,480
10-14	7,322	6,877	7,475	7,254	1,224	1,040	16,021	15,171
15-19	5,490	5,665	6,565	5,745	1,017	946	13,072	12,356
20-24	5,060	5,480	4,672	4,727	1,044	824	10,776	11,031
25-29	4,576	5,143	4,436	4,068	895	774	9,907	9,985
30-34	3,936	3,938	3,167	2,927	857	703	7,960	7,568
35-39	3,401	3,007	2,466	1,910	757	555	6,624	5,472
40-44	2,508	2,433	1,703	1,531	717	475	4,928	4,439
45-49	2,285	2,014	1,694	1,089	643	356	4,622	3,459
50-54	1,653	1,992	1,934	1,406	574	297	4,161	3,695
55-59	1,519	1,365	2,417	879	477	203	4,413	2,447
60-64	1,935	1,671	3,037	906	413	196	5,385	2,773
65 over	2,340	1,611	3,288	849	568	327	6,196	2,787
Unspecified	228	196	158	176	31	25	417	397
Total	59,558	57,930	64,816	55,247	12,357	9,730	136,731	122,907

Generally speaking the Colony is unaffected by any regular movements of population either in the form of external or internal migration. There is a limited movement of Fijians from their village communities to the towns, particularly Suva, where they can work for money wages, but on the whole this movement is temporary and the persons concerned usually return to their village after comparatively short spells of urban life. There is no extensive movement of the other races due to economic motives.

External migration has not been of major importance since the Indian immigration of indentured labour ceased in 1916. Two minor though interesting migrations have taken place in recent years. The first was in 1946 when approximately 1,000 Banabans, the natives of Ocean Island in the Gilbert group, were transferred to the fertile Fijian island of Rambi. This migration was necessary because the working of phosphate deposits in Ocean Island had reduced the natural means of subsistence on the island. Rambi was purchased with trust funds built up from phosphate royalties. Two years later the island of Kioa off the coast of Vanua Levu was purchased on behalf of certain Ellice Islanders, who had increased in numbers beyond the capacity of their food supplies. Both

Rambi and Kioa had been privately owned and the transfer did not involve any movement of indigenous population. These people are now administratively within the authority of Fiji Government, but, as they are living on separate islands with ample room for expansion, it is expected that they will maintain their racial identity for a considerable period.

The remainder of the population, other than Fijian and Indian, in 1950, included 6,501 Europeans, 6,902 Part-Europeans, 3,379 Chinese, and 8,661 Other Pacific Races. Fijians thus comprised 44·2 per cent of the total, Indians 47·1 per cent, Europeans 2·2 per cent, Part Europeans 2·4 per cent, Chinese 1·1 per cent, and others 3 per cent.

The great bulk of the economically productive section of the community is engaged in primary production, both agricultural and pastoral. The following table has been compiled from the census showing the number engaged in occupations classified with broad industrial groups. Of the total economically productive population, 55 per cent is engaged in agricultural and pastoral pursuits, while the remainder are spread throughout a small but developing secondary industry field (9·6 per cent) and the usual services which are necessary to support the basic primary industries. There were only 960 Fijian and 260 Indian women gainfully employed at the time of the census.

CLASSIFICATION OF WORKERS BY INDUSTRIAL GROUPS AND RACES 1946

Group	*Indian*	*Fijian*	*Others*	*Group Total*	*% of each group to Total*
Agricultural and Pastoral	19,851	22,754	1,886	44,491	55·05
Gold Mining	29	606	224	859	1·06
Other Primary and Extractive ..	319	917	180	1,416	1·75
Manufacturing Process..	4,056	2,102	1,629	7,787	9·64
Building and Construction	1,064	1,002	616	2,682	3·32
Transport and Communication ..	1,072	1,107	352	2,531	3·13
Commerce and Banking	1,654	570	1,117	3,341	4·14
Hotel and Personal Service	1,116	696	373	2,185	2·70
Public Service	1,061	2,445	1,182	4,668	5·80
Not Specified	7,123	2,919	796	10,838	13·41
Total	37,345	35,118	8,355	80,818	100·00

The Fijian community is most heavily committed to agricultural occupations. Nearly 65 per cent of all Fijian occupations are in this group. Fijians in agriculture are engaged largely in subsistence production, and in the production of copra and bananas (of which Fijians produce some 60 per cent and nearly 100 per cent respectively), and of some minor cash crops including pineapples. Fijians also provide the bulk of the labour for the gold mines and a fair proportion of labour for secondary and tertiary industries. Trained Fijians now comprise a high proportion of those employed in the public services, particularly in educational, medical and police services.

The Indian section of the community is also mainly concerned with agricultural and pastoral industries which absorb over 53 per cent of the total workers; sugar cane is the main crop, but is closely followed by rice for family consumption and the domestic market. The Indians produce as separate family units and not in village groups as do the Fijians. Manufacturing, processing and servicing trades are staffed very largely by Indians, who also play a very important part in the distribution of goods through small stores scattered throughout the Colony.

Europeans and part-Europeans comprise the main production groups under the heading "others." The main group of the European section, 30 per cent of the total, are engaged on professional and governmental work. The remainder are concentrated in manufacturing and processing (23 per cent), trade and finance (12 per cent), agriculture (including dairy farming) (7½ per cent). In the last-named group approximately half are employers or persons operating on their own account.

The Part-European community in spite of the small numbers provides a large contribution to the requirements of skilled workmen. Of the Part-Europeans, one-third are employed in manufacturing, processing, etc. Agriculture is next in importance (17½ per cent), closely followed by building and construction (16 per cent), and here again the tendency towards skilled tradesmen is strong.

The Chinese population is mostly concerned with trade and 43 per cent of the total workers are in this class. The remainder are in agriculture, processing and restaurant and personal services.

It is noticeable that women appear to play a very small part in paid employment in the Colony. This is particularly so in the Indian and Fijian communities. In this respect the figures are somewhat misleading for in fact some Indian and Fijian women do play an important productive role outside of their domestic duties which are generally not included in economic activity. The women assist their families and village communities in many ways such as rice planting and fishing, but it would not be satisfactory to include them as full industrial units and therefore they have been excluded from the figures. On the other hand a fairly high proportion of European and part-European women are gainfully employed. These are mainly employed in nursing, school teaching, and typing and secretarial work.

Social Amenities

Education

Educational facilities, particularly in respect of primary education are provided by co-operation between the Department of Education and various voluntary bodies, either Fijian or Indian Village School Committees or larger groups such as the Missions, various Indian religious and social groups, the Colonial Sugar Refining Company and the Gold Mining Companies. The greater part of secondary and higher education is provided in schools conducted entirely by Government.

Voluntary bodies provide school buildings (sometimes with Government assistance), maintain them, and contribute approximately 25 per cent of the salaries of the teachers. The balance of the teachers' salaries is paid by Government which trains the teachers in one central training institution, inspects the schools, develops special services such as technical and agricultural education, prescribes the curriculum and in general supervises the routine of educational practice.

At the end of 1950 there were 452 schools and institutions, of which 31 were maintained entirely by Government, 230 by Fijian committees, 100 by Indian committees, 76 by missions and 15 by other bodies. Of these schools 291 were for Fijians, 127 for Indians, 17 for Europeans and part-Europeans, two for Chinese and 15 for children of more than one race. This racial division is at present inevitable in view of the different languages and cultures of the three main races in the Colony.

Primary Education.—The school age for both Fijians and Indians is from six to 14 years, and the great majority of primary schools are mixed. Compulsory education has not yet proved possible, but over 91 per cent of Fijian children and over 64 per cent of Indian children attended school in 1950. At that date there were 434 primary schools of which 280 were for Fijians, 122 for Indians, 18 for Europeans and 14 for other races. The reasons for the discrepancies between the Indian and Fijian figures are the early and extensive provision of schools for Fijians originally made by the Missions, the highly organised nature of Fijian communities and the corresponding absence of any comparable Indian village organisation, the religious and linguistic differences of many Indian communities, the employment by the family on farm and domestic duties of many Indian children and the slow emancipation of the Indian girl from domestic duties. Total enrolment in primary schools was 50,445 in 1950.

Secondary education was provided in 21 schools in 1950. Of these nine were for Fijians, five for Indians, three for Europeans and four for other races. The number of students enrolled at the end of 1950 was as follows :—

SECONDARY SCHOOL ENROLMENT, 1950

Racial Group	*Male*	*Female*	*Total*
Fijian	613	397	1,010
Indian	209	80	289
European	60	85	145
Other	196	19	215
Total	1,078	581	1,659

Technical Education.—Technical training in the Colony is being developed, and well-equipped centres offer courses in carpentry for boys, and homecraft for girls, to a large number of pupils from all races attending school in Suva and Levuka. The total enrolment of pupils attending classes at the Suva technical centre in 1950 was 374 boys and 300 girls. Two similar centres are projected in Lambasa and Lautoka. Full provision for the teaching of carpentry and homecraft has been made at the large Fijian school at Vatukoula. The technical centres in Suva, Levuka and Vatukoula conduct evening classes in technical subjects throughout the year. At Suva 179 students attended classes in carpentry, mechanical engineering, plan and detail drawing, building construction, applied electricity and plumbing in 1950; at Vatukoula courses are given in some years in mining and drilling, milling and treatment and mechanical engineering.

Most of the technical education in the Colony is carried on by Government departments other than the Department of Education. In-service training is undertaken or sponsored by the Postmaster-General's Department, Public Works Department, the Department of Agriculture and the Forestry Department. In co-operation with the Mining Companies technical courses for mine employees are provided at Vatukoula school. The Methodist Mission has an agricultural school and the Colonial Sugar Refining Company provides a cane farm of 350 acres where 70 Fijian trainees are always in residence. Over 300 cane farmers have already been trained here and established on farms with the assistance of the Company.

A Committee is at present examining the possibility of establishing an apprenticeship system in the Colony.

Higher Education.—There are two establishments at the post secondary stage in the Colony—the Teachers' Training College at Nasinu, where between 200 and 300 Indian and Fijian teachers of both sexes are annually in residence taking a two-year course, and the Central Medical School at Suva where in 1950 some 78 students were taking a four-year course to train as Assistant Medical Practitioners. The Medical Department also trains nurses, mainly Fijian girls; there were 105 in training at Suva and 64 at Lautoka in 1950.

Other types of further education have to be sought outside the Colony. The Government offers an annual scholarship for academic studies at university level on the result of the New Zealand School Certificate Examination and a similar scholarship, but limited to Fijian entrants, is provided by the Morris Hedstrom Scholarship Fund. Three teachers are also awarded two-year bursaries each year for further training at Auckland University College. During 1949 eight students were awarded grants under the Colonial Development and Welfare Scholarship Scheme, six of them in New Zealand, one in England, and one in Queensland. In 1950 four grants were made. At least 100 non-European students, mostly Indians, were receiving education overseas during 1950, the great majority of them attending university colleges in New Zealand.

The degree of literacy of the population has not been measured since the 1946 census, but the following data from the census returns may be taken as an approximate reflection of the present position :—

DEGREE OF LITERACY, 1946

RACE	*MALES*		*FEMALES*		*Total Literacy per cent of Respective Racial Population*
	Standard Literacy : Number of Persons	*Per cent of Respective Racial Population*	*Standard Literacy : Number of Persons*	*Per cent of Respective Racial Population*	
Chinese	1,292	89·29	131	67·18	86·66
Part-Europeans ..	1,541	92·33	1,373	87·40	89·94
Fijians	31,369	90·02	29,133	84·40	87·26
Indians	17,590	49·53	4,377	16·73	35·62
Melanesians ..	218	34·28	125	44·80	37·49
Polynesians	329	91·39	300	82·19	86·64
Rotumans	848	92·17	766	85·68	88·97
All Others	786	90·66	618	87·54	89·26

Health

The medical services of the Colony are, for the most part, a direct activity of Government. There are three Government hospitals in Suva of which one specialises in tuberculosis and one in mental diseases. In addition there is a European maternity home which is privately operated but assisted by Government subsidy. There is a hospital on the island of Makongai for the treatment of leprosy. District hospitals are situated in Lautoka, Lambasa and Levuka; there are 14 rural hospitals and 36 rural dispensaries scattered throughout the Colony.

The following table shows the extent of general hospital services, i.e., excluding the mental hospital and the leprosarium, in 1949 :—

HOSPITALS AND DISPENSARIES—BEDS, ADMISSIONS AND ATTENDANCES, 1949

Hospital	*Beds*	*Occupied Beds Daily Average*	*Admissions*	*Out-Patients*
General Hospital, Suva	274	244	3,805	69,170
Tuberculosis Hospital, Suva ..	216	166	294	3,733
District Hospitals	190	144	5,567	35,882
Rural Hospitals	365	273	7,955	102,369
Rural Dispensaries	—	—	—	134,636
	1,045	827	17,621	345,790

Public hygiene and sanitation is administered by the Central Board of Health under the Public Health Ordinance. The Director of Medical Services is Chairman of the Board and expenses are met by the Medical Department. The functions of the Board are decentralised to the Local Authorities, which consist of nominated committees of suitable representatives of the townships and districts. There are seven fully trained Health Inspectors and a number of locally trained Assistant Health Inspectors who carry out regular inspections of dwellings, shops and food supplies.

Special facilities exist for child welfare and maternity work. This service is carried out by qualified Health Sisters under the direction of District Medical Officers with the object of detecting and treating diseases in their early stages.

Fees for medical attention and hospital treatment, formerly free for Fijians and Indians, were introduced in 1952 with special provision for those unable to pay and for emergency cases. The net cost of these services was £373,023 in 1949, representing 10·2 per cent of the total expenditure of the Colony, and rather more than 26s. per head of population.

The health of the various races in Fiji generally is good but certain diseases or conditions are serious problems although for the most part the incidence is not high. By far the most serious disease is tuberculosis of which there were 424 cases notified and 158 deaths recorded during 1950. The distribution of the cases reported was : 274 Fijians, 105 Indians and 42 others. To determine the incidence of this disease funds have been provided under the Coloainl Development and Welfare Act and a comprehensive survey commenced in 1948. A miniature transportable mass X-ray unit is being used.

The Fiji Leprosy Hospital on the island of Makongai serves Western Samoa, Eastern (American) Samoa, the Cook Islands, Niue, Tonga and the Gilbert and Ellice Islands Colony and New Zealand, in addition to Fiji. All cases are compulsorily segregated on this island and the discharge rate is controlled by strict criteria of inactivity. There is a carefully controlled follow-up of discharged patients, and the percentage of readmissions has been low. Notifications of leprosy in Fiji for 1950 numbered 39 which is close to the average. The majority of cases are detected in their early stages and many cures are effected.

Filariasis is found mainly amongst the Fijian population in native villages. A campaign against this disease by the elimination of the known breeding places of the vector mosquito in the neighbourhood of towns and villages, was started in June, 1944. This campaign has now been extended to the whole Colony. When the campaign began, approximately 82 per cent of the villages inspected were found to be subjected to dangerous numbers of this type of mosquito ; this figure has now been reduced to 15 per cent.

Yaws is confined to Fijians and is prevalent in some parts of Colony. District health nurses administer injections during their routine visits to schools and villages, and from the experience of the past 20 years it is apparent that this disease is being brought under control although no statistics are available.

Malaria does not occur in the Fiji Islands and measures taken to prevent its introduction by aircraft and ships are estimated to cost about £20,000 annually.

Housing

Housing standards for the towns of Suva and Lautoka are set out in building regulations especially applicable to those towns. In other townships and rural areas, building is controlled by regulations issued under the Public Health Ordinance.

Houses in urban areas are mostly of wooden construction with corrugated iron roofs, except in Fijian villages where traditional thatched houses are retained. Housing for labour is provided by the major employers.

A comparatively large number of houses are being built by private enterprise at present but for the most part these are for owner occupiers because the high cost of building (approximately 45s. per square foot for a concrete block house and 37s. 6d. for a wooden house of the usual local standard of construction in 1949) makes it difficult to obtain a rental that would justify building for investment.

A Government Housing scheme for workers in Suva is being prepared and £80,000 has been provided for this purpose in the Colony's Development Plan. These houses will be for industrial workers and will be used partly to replace existing sub-standard houses and to relieve the general shortage.

Social Security

There is no established provision for unemployment relief and no system of social insurance or pensions.

The Government provides both indoor and outdoor relief for the aged, infirm and destitute. Relief is given on the merits of each case and is administered by a Board in Suva and by the District Commissioners in other areas. Expenditure under this heading is estimated at £29,000 for 1950.

The Government operates a Savings Bank which has its Head Office in Suva and 20 Branch Offices operated in conjunction with Post Offices. At the close of the year 1949, the number of accounts remaining open was 43,159, and the amount standing to the credit of depositors was £1,376,959. In an endeavour to inculcate habits of thrift in the younger generation, it is proposed to introduce a system of savings by means of Government Savings Stamps which will be issued to approved schools and similar organisations.

Political Structure

Constitutional and Political Background

The Government of the Colony is provided for under the Letters Patent 1937* and Royal Instructions. The

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* Amended in 1951.

Letters Patent, after constituting and prescribing the office of Governor, provide for an Executive Council and Legislative Council. The first-named body is presided over by the Governor and consists of the Colonial Secretary, the Attorney-General, and the Financial Secretary as ex officio members, and such other members as Her Majesty, or the Governor acting under the authority of Her Majesty, may appoint. At the end of 1950, six such additional members were appointed of whom four were unofficials ; for three of these places in the Executive Council each of the three groups of Unofficial Members in the Legislative Council (European, Fijian and Indian) is invited to recommend one of its own number.

Under the Royal Instructions, the Governor is required to consult with Executive Council in the exercise of his authority, but he may act in opposition to the advice tendered to him by the Members of the Council, in which case he is required to report the matter to the Secretary of State by the first convenient opportunity, giving the grounds and reasons for his action.

The Legislative Council is presided over by the Governor and consists of 16 Official Members (of whom the Colonial Secretary, Attorney-General and Financial Secretary are ex officio members) and 15 Unofficial Members, of whom five are European, five Indian and five Fijian. The European and Indian representation is made up of three elected members and two nominated members. Elections are held every three years in the three electoral divisions into which the Colony is divided. The five Fijian members are nominated by the Governor from a panel of not less than seven and not more than 10 Fijians submitted by the Great Council of Chiefs.

European electors must be the sons of parents of European descent, British subjects, aged over 21 years and in receipt of an income of £75 per annum or property of an annual value of not less than £20. Similar qualifications are required of Indian electors, except that they must be of Indian descent, and in receipt of an annual income of £75 a year or property having an annual value of not less than £5 a year, and they must be able to read and write either English or one of six prescribed Indian languages.

Legislative Council is empowered to make laws which take effect when assented to by the Governor on behalf of Her Majesty the Queen. Under the Royal Instructions, the Governor may not, without the prior approval of the Secretary of State, assent to any Bill dealing with questions of divorce, currency, banking, tariff preferences, international treaty obligations, discipline and control of Her Majesty's Forces, and Bills providing for disabilities or restrictions on persons of non-European descent. In addition the Crown retains the power of disallowance over any Ordinance enacted in the Legislative Council of the Colony.

The Colony's draft Estimates are presented annually to Legislative Council but, before their final adoption, they are considered by a Select Committee on the Estimates, which is usually presided over by the Financial Secretary and includes the 15 Unofficial Members of Legislative Council. The Unofficial Members, in this way, are able to examine and exercise a large measure of control over the expenditure of public funds. There is also a Standing Committee on Finance of Legislative Council which may be called upon at any time to make recommendations with regard to applications for additional provision outside that provided for in the Colonial Estimates and necessitated by unforeseen events during the course of the year. The Committee meets each month and has the same membership as the Select Committee on the Estimates and operates in the same manner.

Local Government

The two main commercial centres of the Colony are Suva and Lautoka. On 9th July, 1948, the Local Government (Towns) Ordinance was brought into force and applied to Suva which has a population of just over 12,000 ; this provided for the election of a Town Council, which took place on 8th January, 1949. The new Town Council is presided over by a Mayor and is similar to the Municipal Councils common to many countries. The duties of the Council comprise the maintenance and construction of streets, supervision of buildings, sanitation and amenities.

The provisions of the Local Government (Towns) Ordinance have not been applied to Lautoka which remains constituted under the Towns Ordinance 1935. Under this Ordinance the Town Board is a nominated body ; it may levy rates, collect sanitation fees, and raise loans, and has duties and powers normally associated with local Government authorities. Lautoka relies, however, on services and technical advice provided by the Central Government as, with a population of 2,225,* the town is not sufficiently large to be able to provide the multifarious services normally expected in a municipality.

Smaller settlements, which have grown up around District headquarters and sugar mills or at the natural centres of agricultural districts are termed Townships and have Boards nominated by the Governor under the Townships Ordinance. There are five such townships, Nausori (population 1,121)*, Mba (population 1,315),* Lambasa (population 1,106),* Levuka (population 1,944)* and Nandi (population 865),* the first two having official chairmen, and the last three unofficial chairmen.

These bodies have power to levy general and special rates, and are responsible for the cleanliness, drainage, recreation grounds, etc., of the townships. Being small, they are unable to provide any but rudimentary services and have to rely on the Central Government for technical advice and public works, including roads.

Nearly all local authorities are subsidised by the Central Government either to meet current deficits or to finance special projects.

District Administration

For administrative purposes the Colony is divided into three Districts, each of which is under the charge of a District Commissioner who is responsible to the Governor, through the Colonial Secretary, for the administration of his District. The Districts are as follows :—

The Western District, with headquarters at Lautoka, comprises the north-western half of Viti Levu and the Yasawas.

The Northern District, with headquarters at Lambasa, comprises Vanua Levu, Taveuni and contiguous islands.

The Southern District, with headquarters at Suva, comprises the south-eastern part of Viti Levu, the islands of Kandavu, Mbengga, Ovalau and others in the Koro Sea, and islands of the Lau group.

The District Commissioners are responsible for co-ordinating the activities of all Departments within their Districts and generally supervising the activities of government in all its multifarious aspects.

Fijian Administration

The Fijian Administration constitutes a Local Government system having jurisdiction over all Fijians in the Colony. It was established in 1876 by Sir Arthur Gordon (later Lord Stanmore), the first Governor of Fiji, and it is analogous to the system of indirect rule which has been applied in African Colonies. The Fijian Affairs Ordinance 1944, the current statutory authority for the system, is designed to continue the development of the policy of building on indigenous institutions.

For the purposes of the Fijian Administration the Colony is divided into provinces (yasana), based on the old tribal boundaries, each of which consists of a number of "tikina," comprising groups of villages. At the head of each province there is a Roko Tui and at the head of each tikina there is a Mbuli, all salaried officials of the Fijian Administration. They are not necessarily persons of hereditary rank. Each province and each tikina has its Council which has power to make By-Laws, in the case of the former, and to make Orders in the case of the latter.

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* 1946 Census.

At the apex is the Council of Chiefs, presided over by the Secretary for Fijian Affairs, membership of which is made up from Roko Tui of all the provinces (ex officio), six Chiefs appointed by the Governor, representatives of each province selected by the Provincial Council together with certain other officials of the Fijian Administration nominated in accordance with the provision of the Fijian Regulation governing the constitution of this Council. This Council includes in its duties that of submitting to the Governor a panel of names of Fijians from whom the Governor selects five for appointment to the Legislative Council. The names for the panel are chosen by secret ballot and may include a Fijian who is not a member of that Council. This system of nomination through the Council of Chiefs provides a direct link with the Legislative Council.

By the provisions of the Fijian Affairs Ordinance, 1944, an executive body known as the Fijian Affairs Board has been established. This body consists of the Secretary for Fijian Affairs as Chairman, the five Fijian Members of the Legislative Council and a Legal Adviser. Its main duties are to make appointments, to make Regulations, to control provincial Revenue and Expenditure, and to submit to the Governor such recommendations and proposals as it may think fit for the benefit of the Fijian people. The Legal Adviser has powers of review over all cases heard in the provincial and tikina courts which are described below.

The law provides for the making of Fijian Regulations which must conform to the safeguard provided by section 28 of the Fijian Affairs Ordinance. This reads :—

> " If the subject matter of any Regulation, By-Law or order made under this Ordinance is also the subject matter of any other law for the time being in force, not being a Regulation, By-Law or order made under this Ordinance, such Regulation, By-Law or order shall not be invalid solely by reason thereof, but shall be void to the extent to which it is incompatible with such other law."

Broadly speaking, the Fijian Regulations serve two purposes. First, they secure the continuance of the Fijian communal system and the customs and observances traditionally associated with that system. In the complex structure of society in Fiji, resulting from the influx of non-indigenous races, it has long been recognised that legislation must intervene to reinforce the moral and customary sanctions which in earlier times bound Fijians together in the communal fold. Second, they provide a simple code of civil and criminal law adaptable to situations arising in the communal way of life, enforcing in some instances the traditional Fijian moral standards, and comprehensible to the Fijian people and the magistrates who are drawn from their ranks. No attempt is made to bring within the ambit of the Fijian Regulations those offences which are not specially identifiable with the standards of the communal system.

The Fijian Code has been completely revised and received the unanimous approval of Legislative Council on 22nd September, 1948. The new Regulations came into force in 1949.

Each province and each tikina has its own court ; the latter is presided over by a Fijian magistrate and the former by a bench of three magistrates of whom at least two must be Fijians while the third may be an Administrative Officer. The Mbuli have no magisterial powers or functions (except that Mbuli of isolated islands in some groups are Marriage Officers) so that judicial and executive functions are separated. The provisions in the Fijian Affairs Ordinance relating to the review of cases and to appeals, which lie to the Supreme Court from the provincial courts, provide adequate safeguards against injustices.

Each province controls its own Budget, which is forwarded with the report of the proceedings of the Provincial Council for the approval of the Secretary for Fijian Affairs. The actual revenue for all provinces in 1950 was £97,308. This is found mainly from rates, payable by all male adults between the ages of 18 and 60 years. Rates are struck each year for each province and varied between £2 10s. 0d. and £3 10s. 0d., per taxpayer in 1950. Court fines and fees and subventions from general revenue augment revenue derived from rates. Expenditure in 1950 was £95,062, of which £54,052 was voted for administrative services, including judicial, treasury, public works and constabulary, and the remainder allocated to educational, medical and agricultural services. Government provided approximately three-eighths of the total cost of these services, by way of subvention.

Indian Administration

The Indians have no organised communal system comparable to that of the Fijians, but live in a number of settlements and on widely scattered small holdings, situated, in the main, in the fertile valleys round the coasts of Viti Levu and Vanua Levu. In the administration of these communities Administrative Officers are assisted by a number of Indian Advisory Committees which act as a channel for keeping the people informed of official matters and for keeping Government informed in matters concerning the well-being of the Indian population. In addition Administrative Officers travel regularly through all parts of their districts in order to keep in touch with the people and to acquaint themselves at first hand with the conditions, problems and difficulties of the various communities ; such tours may be undertaken alone or in company with agricultural, medical or other technical officers.

Relations with Adjacent Territories, etc.

There is no political affiliation with any other administration, but there are a number of arrangements for mutual assistance on non-political matters. Of these, the South Pacific Commission is the most important. Fiji is not a member, but is represented by the United Kingdom Government and is greatly interested in the Commission's efforts to improve the social and economic welfare of all South Pacific Islands. The Commission consists of representatives of the United Kingdom, United States of America, Australia, New Zealand, Holland and France. It has a permanent Secretariat and research departments established at Noumea, capital of New Caledonia. The South Pacific Health Service is a notable example of effective pooling of individually limited resources in order to improve facilities for research and training in medical matters.

The Government of New Zealand co-operates with the Colony in recruitment of personnel for the nursing and teaching professions.

Fiji, with the Western Pacific High Commission, is a member of the South Pacific Air Transport Council, which was formed in 1946 to keep under review and to promote the progress and development of Commonwealth civil air communications in the South Pacific and on the main trunk air routes. Other Governments in the Council are : Australia, Canada, New Zealand and the United Kingdom.

Four meetings of the Council have been held—1946 and 1947 in Canberra, 1948 in Wellington, and 1950 in Melbourne—and during this period the Council's main concern has been the maintenance and operation of the international airport in Fiji. This has been undertaken by the Civil Aviation Branch of the New Zealand Air Department on behalf of the member Governments. Recurrent expenditure is charged to a Pool Account, and is shared between the Governments of Australia, Canada, New Zealand and the United Kingdom ; capital expenditure is charged to the same account, but no contribution is made by Canada towards capital expenditure. Fiji makes an annual contribution for the facilities provided at the expense of the Pool Account, and used also for regional and local air services, while Fiji and the Western Pacific make an annual contribution for meteorological services supplied under the Pool Account organisation and used for domestic purposes.

Since 1946 the International Civil Airport in Fiji has been located temporarily at Nandi, 135 miles by road from Suva. In 1948 the Council recommended a site at Suva Point, two miles from the capital; but a detailed survey showed that the cost of such a scheme would be prohibitive, and in May, 1950, the Council recommended that Nandi should be developed on a permanent basis.

Principal Economic Legislation

Information given below relates to the end of 1950.

General

Companies' Ordinance.—The Companies' Ordinance requires the usual steps to be taken upon formation; the preparation and registration of a Memorandum and Articles of Association, minimum membership (seven persons for a public company and two in the case of a private company), registration of prospectus and conditions of allotment of capital. After formation, companies are bound by normal provisions covering share registers; annual and special general meetings; audit and production of balance sheet and profit and loss account; and general condition of management, qualification and duties of directors, etc.

Licensing.—Every person following or exercising any of a variety of callings, trades and professions is required to take out a licence and pay a fee in accordance with the provisions of the Licensing Ordinance. In certain cases where the calling is followed in rural areas a lesser fee is payable than in towns. Examples of fees payable are shown below:—

LICENCE FEES

	Towns			*Country*		
	£	s.	d.	£	s.	d.
Agent for foreign firm or firms ..	30	0	0	30	0	0
Architect	10	0	0	10	0	0
Auctioneer	40	0	0	20	0	0
Hawker-General	...			3	0	0
Hawker of pigeons or other wild birds	...			1	0	0
Insurance Company	40	0	0	40	0	0
Photographer	20	0	0	5	0	0
Surveyor	10	0	0	10	0	0

Licence fees are also chargeable on motor vehicles, arms, wireless sets, dogs, etc.

Encouragement of New Industries.—The Protected Industries Ordinance, 1946, provides that in certain circumstances an undertaking may apply for and obtain relief from competition either wholly or to a limited extent. One or two important new industries have been granted this privilege. The object is to encourage the development of industries which could not operate economically unless assured of the whole or a large part of locally available raw materials. An ordinance of 1951 provided for the establishment of an Agricultural and Industrial Loans Board to assist the development of small industries.

Income Tax and *Surtax* form the principal direct taxes; details of these taxes, together with particulars of the *Residential Tax* are given under Public Finance in Part III, below.

Death and Gift Duties.—Estate Duty is payable where the final balance of the estate exceeds £100, and for this purpose the final balance represents the total balance of an estate less authorised allowances in respect of debts due by the deceased. Rates of estate duty are as follows:

Where the final balance of the estate exceeds	But does not exceed	Rate
£	£	
100	500	1 per cent
500	1,000	2 „ „
1,000	5,000	3 „ „
5,000	10,000	4 „ „
10,000	20,000	5 „ „

Thereafter the rate of duty increases progressively until, the case of estates exceeding £200,000 a duty of 30 per cent is payable.

Succession Duty is payable on the final balance of an estate which exceeds £500 and is in addition to estate duty. The present rates and exemptions are as follows:—

Where the successor is—	Rate on first £1,000
(*a*) a lineal descendant or ancestor ..	1 per cent
(*b*) a brother or sister or their descendants	5 „ „
(*c*) a person in any other degree or a stranger-in-blood	10 „ „

Plus $\frac{1}{10}$ per cent for each additional £1,000 to a maximum of 10 per cent for (*a*), 15 per cent for (*b*) and 20 per cent for (*c*)

Exemptions are allowed where the successor is a husband or wife; or a corporation of persons for religious, charitable or educational purposes.

No succession duty is payable in respect of any succession the value of which does not exceed £20.

Gift Duty is payable on all gifts exceeding £1,000 on a sliding scale ranging from 5 per cent up to £5,000, to 20 per cent on gifts exceeding £20,000. It is payable on the full value of the gift made by the same donor when such gifts exceed £1,000, whether at the same time, or 12 months subsequently, or 12 months previously. Gift Duty is not payable on a marriage settlement or on gifts to religious, charitable or educational trusts in Fiji.

Entertainments Tax.—The rates range from 1d. when the admission charge does not exceed 5d., to 9d. when the charge is in excess of 2s. 5d. No tax is levied on children under 15 years of age when the admission charge does not exceed 6d. The management of the entertainment is responsible for the collection of the tax. Exceptions are made for charitable and educational purposes and also cultural entertainment conducted by a non-profit making society.

Trade Tariffs (and Export Control)

Import Duties.—The principal features of the Customs Tariff are summarised in the table which follows:—

IMPORT DUTIES

		British Preferential Tariff	*General Tariff*
Apparel and piece goods ..	*ad val.*	25%	50%
Beer in bottles	per gall.	5/6	7/6
Beer in bulk	per gall.	5/-	7/-
Cement	per cwt.	8d.	1/-
Cigarettes	per lb.	25/-	29/-
Flour, sharps and pollard	per ton of 2,000 lbs.	40/-	60/-
Foods not specifically enumerated	*ad val.*	20%	40%
Hardware not specifically enumerated	*ad val.*	25%	50%
Iron and mild steel, Black (unformed)	per ton	30/-	45/-
Iron and mild steel, galv. (unformed)	per ton	60/-	90/-
Drugs and medicines ..	*ad val.*	25%	45%
Motor Cars and Lorries ..	*ad val.*	25%	40%
Oils—Benzine	per gall.	9d.	9d.
Kerosene	per gall.	4d.	4d.
Paints, in oil and dry colours	*ad val.*	20%	40%
Salt in bulk..	per cwt.	2/-	3/-
Spirits	per gall.	70/-	83/-
Tea	per lb.	4d.	7d.
Timber, undressed and over 2 in. in width	per 100 sup. ft.	2/-	4/-
Timber, dressed and over 2 in. in width	per 100 sup. ft.	2/6	4/6
Tobacco, manufactured ..	per lb.	20/-	23/6

Ad valorem duties are assessed on the c.i.f. value of the goods. This, though standard practice in many countries, was not introduced into Fiji until January, 1948, in conjunction with a general revision. Before this date *ad valorem* duties were based on f.o.b. values.

Export Duties.—An export tax is levied under the title of Port and Customs Service Tax which is assessed at the rate of 1 per cent on the f.o.b. value of all exports. Before 1947 an exception was made of copra. This concession was made in 1934 in order to assist the industry which was experiencing extremely low prices but was removed when the industry appeared to have reached a stable period of high prices. An additional tax of 10s. per ton on exports of sugar, the Colony's main product, was introduced in March, 1947, but was removed two years later.

Import Restrictions.—The import of certain goods which may be harmful to public health and welfare is prohibited. The list includes :—

Animal Brushware unless accompanied by a certificate of country of origin ; if it originated in Japan it must be destroyed immediately.

Spirits (Brandy, Whisky and Rum) unless accompanied by evidence that it is matured in wood for at least three years and is of strength of not less than 25 per cent under proof.

Processed milk which is below a specified standard.

Goods of a seditious nature or otherwise expected to disturb the peace and good order of the Colony—and certain undesirable goods and publications.

With the exception of imports from hard-currency areas which are controlled because of the stringency of the foreign exchange position, all imports with the exception of a small range of foodstuffs and a few other items in short supply are covered by open-general licence.

Export Control.—The export of certain goods of minor importance is prohibited, except by special permission ; these goods include sandalwood and kauri gum. This is an attempt to redevelop these industries which were destroyed, particularly the sandalwood, by excessive cutting when the islands were first discovered. The other restrictions are designed to protect certain traditional Fijian ceremonial equipment from the onslaught of curio hunters. Bird life and special types of cattle may also not be exported without authority.

The main exports of the Colony, sugar, copra, gold and bananas, are all controlled in various ways by separate legislation, viz. :—

Sugar.—The Sugar Control Ordinance was introduced in 1937 for the purpose of carrying out the Colony's obligations under the International Sugar Agreement. It provides for the determination of an annual export quota and maximum stocks that may be held in the Colony. Export licences are issued by the Comptroller of Customs. The whole of the Colony's production is now purchased by the British Ministry of Food under long term agreements, and the control is nominal except for exports by local merchants to surrounding Pacific territories.

Copra.—Control of exports of copra and copra products and internal distribution to the two oil mills is in the hands of the Copra Board. This Board is a corporate body under the chairmanship of the Director of Agriculture with eight members representing Fijian (village) producers, non-Fijian (plantation) producers, copra merchants and millers. The Board has sole rights of export of copra and copra products and of purchase of copra, except that all licensed traders may purchase from growers for resale to the Board. The Board fixes the local purchase price and negotiates export prices. The domestic price is as nearly as possible equivalent to the export price after deducting expenses.

Gold.—Exports of gold are subject to licences issued under the Defence (Finance) Regulations.

Bananas and other Fruit.—Exports of fruit are supervised under authority of the Fruit Export and Marketing Ordinance. The administration of the Ordinance is under the Director of Agriculture and there are strict provisions relating to quality, packing, etc. In the case of bananas, permits to export are confined to licensed buyers who are granted sole rights to buy in certain areas. These buyers are obliged to purchase all fruit offered by the native producers at prices fixed under the Regulations.

Wartime Export Controls.—Wartime export controls operated largely to prevent the re-export of goods in limited or short supply. These are still in force but now apply only to those few goods which are still limited under import licensing requirements and a few other goods which are in short supply.

Labour

The Labour Ordinance 1947 gives legislative recognition and effect to a great many of the recommendations of International Labour Conventions of recent years and is a comprehensive coverage of the Colony's present requirements of this form of legislation.

Administration of the ordinance is entrusted to a Commissioner of Labour assisted by Labour Officers and Inspectors. The Department has power to collect and prepare labour statistics and to call for other information relating to conditions of employment.

The ordinance provides for minimum wage rates which may be fixed by order of the Governor in Council in any industries in which it is found, to the satisfaction of the Governor, that the wages paid are unreasonably low. Exemptions may be permitted by the Commissioner of Labour in cases of sub-standard employees or other special circumstances.

Provision is also made for control of recruitment of native workers and for supervision of contracts between employers and native workers. Other provisions deal with conditions of employment of women, young persons and apprenticeship, provision of medical facilities and reports of industrial accidents. Specific regulations may be issued by the Governor in Council dealing with the adequacy of payments in kind, maximum hours, rest periods, overtime and holidays.

The Industrial Associations Ordinance 1942 (Cap. 79) permits the formation and provides for the proper registration of employers' or employees' associations. A formal constitution of association containing provisions covering eligibility of membership, appointment and removal of office bearers, subscription, conduct of meetings, accounting and use of funds, registration of membership, expulsion or resignation of members, benefits and fines and conduct of ballots must be submitted and approved by the Registrar-General. Annual returns of accounts, membership and new rules must be filed with the Registrar-General who may make special inquiries at any time if improper conduct is suspected and may cancel registration if contraventions of the constitution are disclosed. In such cases there is a right of appeal to the Supreme Court.

Registered associations may conduct industrial disputes and are free from conspiracy charges and actions of tort, but the conduct of such disputes must not include intimidation. There are also provisions to ensure "open shop."

The Industrial Disputes (*Conciliation and Arbitration*) *Ordinance*, 1942 (Cap. 80) makes provision for the conduct and settlement of disputes. Settlement by direct negotiations between the parties is encouraged, and there is no formal Government interference unless it is apparent that agreement cannot be reached. The Governor may take steps to enable the parties to meet with an independent chairman in an effort to reach amicable settlement or refer the dispute to a Conciliation Board consisting of a chairman and other members to represent the parties in equal numbers. These representatives may be nominated by the parties, but if such nominations are not forthcoming the Governor may appoint one person to act alone as the Board.

The Board's duty is to investigate the dispute and endeavour to reach a mutually agreeable settlement. If this is done the terms of the settlement are drawn up by the Board and signed by the parties. Any such settlement has the force of law until one month after formal notice of intention to repudiate is lodged by either party. During this period it is an offence for any person to act in any way leading to violation of the settlement. In the absence of agreement the Board must proceed to a conclusion in the form of a report and recommendation for settlement. This report and recommendation must be published in the Gazette and, within fourteen days of publication, the parties must state in writing whether they accept or reject the recommendations. Failure to reply is taken as acceptance. These replies must also be published. A settlement reached at this stage also has the force of law until formally repudiated. Up to this point the machinery for industrial peace is purely conciliatory for the Board has no power to insist upon the parties accepting its recommendations. However, the publication of the facts of the case and recommendations would, no doubt, bring to bear the powerful factor of informed public opinion.

If these attempts fail and a settlement is necessary in the public interest the dispute then goes to a Court of Arbitration composed of one or more members appointed by the Governor. The decision of this Court is binding upon all parties and operates for a specified period or until it is altered by a similarly constituted Court.

The Workmen's Compensation Ordinance, 1941 (Cap. 81) applies to all employees except the following :—

(*a*) Any person employed otherwise than by way of manual labour whose earnings exceed £360 a year ;
(*b*) A person whose employment is of a casual nature and who is employed otherwise than for the purposes of the employer's trade or business, not being a person employed for the purposes of any game or recreation and engaged or paid through a club ;
(*c*) An outworker ;
(*d*) A tributer ;
(*e*) A member of the employer's family dwelling in his house ;
(*f*) Any class of persons whom the Legislative Council may by resolution declare not to be workmen for the purposes of the ordinance.

Employers are liable to pay compensation for any personal injury by accident which prevents a workman from earning full wages for a period of at least four days. Employers are not liable for compensation if the injury is caused by serious or wilful misconduct unless the accident results in death or serious permanent injury, in which case an accident shall be deemed to arise out of, and in the course of employment even though it can be shown that the employee was acting against the employer's orders or the law. Compensation is also payable on account of occupational diseases provided incapacity occurs within a year of the employee ceasing work in the particular industry in which the disease was contracted.

Land Tenure

The most important legislation regarding land tenure is embodied in the following Ordinances :—

Native Lands Ordinance.
Native Land Trust Ordinance.
Rotuma Lands Ordinance.
Subdivision of Land Ordinance.

In general, four classes of land are recognised : Crown land (approximately 500,000 acres), freehold land (500,000 acres), and native lands and native reserves (3,500,000 acres). Crown land may not be sold without prior reference to the Secretary of State, and the outright sale of native land, other than to the Crown for public purposes, is prohibited.

Control of all native land is vested in the Native Land Trust Board, established in 1940, which is responsible for administering the land for the benefit of the native owners. The Board may set aside and proclaim any portion of native land as a Native Reserve, and such land may not be leased or otherwise disposed of except to Fijians, and then only with the Board's consent. Native land not included in a Native Reserve may be leased by the Board. Subject to certain restrictions the maximum term for grazing leases is 50 years, and for other leases 99 years. The conditions under which native land is leased have been designed to ensure the full and proper use of the land and the prevention of erosion and loss of fertility by improper cultivation.

Immigration

The Immigration Ordinance, 1947, and the Directive issued under Section 8 (3) thereof restricts the issue of Residents' Permits to the following categories of persons:—

(*a*) Farmers and planters if they have already acquired a property in the Colony of not less than 100 acres, three-quarters of which is productive land ;
(*b*) Professional men and women with recognised qualifications who intend to practise their profession in the Colony, provided that the entry of teachers must be approved by the Director of Education ;
(*c*) Ministers of Religion ;
(*d*) Persons who are employed outside Fiji by local firms or undertakings and who are transferred to the Colony ;
(*e*) Persons who satisfy the Principal Immigration Officer (the Commissioner of Police) that they have an assured income, that they will not become a charge on public funds, and that their entry is not contrary to the public interest and who accept any conditions which may be imposed ;
(*f*) Persons absent from Fiji on 11th June, 1948, who hold Fiji passports issued before that date provided they—
  (i) were originally admitted to Fiji under the indenture system and were resident in the Colony when the passport was issued, or
  (ii) had resided continuously in the Colony for not less than ten years before applying for a Fiji passport and also have permanent business interests or employment in the Colony ;
(*g*) Persons who have established or establish a residential status under the ordinance by living for five years continuously in the Colony, and who, having left the Colony with the intention of returning, lose that status by remaining away for more than twelve months, provided that the person concerned satisfies the Principal Immigration Officer that he was unable to return because of circumstances beyond his control, or for some other good and sufficient reason.

Visitors and tourists may land and remain in the Colony for a period not exceeding four months without having to obtain landing permits. They are, however, required to furnish such financial security against their becoming a charge on the Colony as the Immigration Officer may require.

Short-term permits to reside in Fiji for any period under four years may be issued at the discretion of the Principal Immigration Officer to apprentices, skilled tradesmen, miners, students, persons under medical treatment and to persons entering the Colony under short-term contracts of employment with local commercial or agricultural undertakings.

Subject to the production of satisfactory proof, the following classes of persons are exempted from the provisions of the ordinance :—

(*a*) British subjects born or domiciled in Fiji ;
(*b*) British subjects who have lived in Fiji for five years and who are returning after an absence of less than twelve consecutive months ;
(*c*) Serving members of British or Allied forces ;
(*d*) Members of Her Majesty's diplomatic or consular services and of the Consular service of a foreign power duly accredited to the Colony, together with members of their household ;
(*e*) Persons employed in Government service in territories of the British Commonwealth and the wives and families of such persons.

Entry into the Colony is prohibited in cases where a deportation order is in force or where the Commissioner of Police has, with the approval of the Governor, notified the Principal Immigration Officer that, as a result of information received from a reliable source, the entry of any person into the Colony is likely to be prejudicial to peace and good order. Entry is also prohibited of persons who have been convicted by a court outside the Colony of an offence, which, if committed within the Colony, is punishable with imprisonment for more than two years.

Communications and Transport

External Transport

Shipping.—Passenger-cargo liners (two) operating between Sydney and Vancouver make regular calls at Suva on both north-bound and south-bound voyages, and a regular cargo and passenger service (one vessel) connects Suva with Auckland and with Tonga and Western Samoa. One ship of the British India Steam Navigation Company, Ltd., made a single call at Fiji in 1950, carrying 628 passengers to and from India. A regular cargo service operates between Fiji and Australia, and an increasing number of vessels (nine in 1950 with 36,506 tons of general cargo as compared with six in 1949 carrying 23,443 tons, and four in 1948 carrying 21,477 tons of general cargo) arrive direct from the United Kingdom via Panama.

A total of 146 vessels of a total tonnage of 474,464 tons, visited the Colony during 1950, as compared with 174 vessels of a total of 543,100 tons in the previous year.

Harbour and Port Facilities.—There are eight harbours used for overseas shipping: Suva, Lautoka, Levuka, Vatia, Ellington, Malau (Lambasa), Savu Savu and Rotuma, but only Suva, Lautoka and Levuka are ports of entry with customs facilities. Suva is by far the largest and handles about 75 per cent. of the Colony's total import trade. Lautoka is the next in importance, and there is a growing tendency to land supplies at this port for the North Western sugar belt of Viti Levu. Levuka is waning in importance. It has always been mostly concerned with transhipment cargo destined for the outlying copra producing islands, but this trade is tending to concentrate upon Suva.

The main exports from Suva are copra and oil, fruit, coconut meal, peanuts, etc. Lautoka and Lambasa specialise in sugar exports from mills situated in the districts. Levuka and Savu Savu are almost entirely used for copra shipments and Vatia, the port of the gold mining district, is limited to supplies, particularly petroleum products, for the mines.

Air Services.—Fiji is on the main trans-Pacific air route from Canada and the U.S.A. to Australia and New Zealand. The Colony is also linked by air with Tonga and Western Samoa. The main airfield is at Nandi in the dry zone, approximately 135 miles from Suva; there is another airfield at Nausori 14 miles from Suva, and a seaplane base at Lauthala Bay.

Internal Transport

Shipping.—Most of the islands in the group are fairly well served by inter-island vessels for the carriage of goods. There are 62 of these vessels, ranging in size from the modern 225-ton "Yanawai", on a regular service, to small cutters of 5 tons register. These vessels operate mainly from Suva and Levuka, carrying stores on the outward voyage and bringing back copra and a small amount of other produce; they also cater for passengers.

Roads.—The total mileage of proclaimed roads is 935, of which 636 miles are all-weather roads, while some of the remainder are non-motorable and are proclaimed to preserve public right of access. The main highway is the circuminsular road of some 319 mile on Viti Levu. Apart from those in urban and surburban areas all other roads on Viti Levu are feeders to the main highway. The main road is surfaced with bitumen over a few sections in the main centres of population and surfaced elsewhere with crushed stone from quarries or shingle from rivers and beaches.

There are motorable roads on Vanua Levu (in and around Lambasa and Savu Savu) and on Taveuni and Ovalau islands.

Railways.—There are no wide gauge railways in Fiji, but a light railway of some 400 miles of 2 feet gauge is owned and operated by the Colonial Sugar Refining Company in Viti Levu and Vanua Levu for the carriage of sugar cane to their mills. Between 40 and 50 locomotives are normally in service. There are three unconnected systems, and that centring on the western district sugar mills is approximately 220 miles in length. One of the terms on which the concession was granted to the company for the construction of this line was that a train for the free conveyance of passengers should be run from end to end once or twice a week, according to season, on a schedule approved by the Government.

Air Services.—Fiji Airways operate a twice daily service with D.H. Rapide aircraft between Nausori (Suva), Nandi international airport and Lautoka on the main island of Viti Levu. It is hoped to extend air services to the other islands in the Fiji group and to Tonga when the necessary airfields can be developed and the ground organisation provided.

Posts, Telegraphs, and Radio Communications

Posts.—Surface mails arrive and leave at regular monthly intervals, travelling via New Zealand, and use is made of other vessels to despatch mails as the opportunity offers. An internal service is maintained by motor vehicles and vessels under contract, and by itinerant cutters to outlying parts of the Group.

Air mail services are regular and frequent, travelling weekly in both directions through the international airport at Nandi and the flying boat base at Lauthala Bay.

Telegraphs, Telephones, etc.—Telegraph facilities are available to all centres of importance, and a three-channel telephone trunk connects Suva with Lautoka. A new automatic exchange, is being constructed at Suva. Eight new radio-telephone stations were installed in 1950 bringing the total to 32, with more planned for the immediate future. All work to a central receiving and transmitting station in Suva. A radio-telephone link with Australia is projected. External communications are maintained by Cable and Wireless, Ltd.

The Group possesses a broadcasting service, having 3,062 licensed listeners in 1950; more than half of these were European, a third were Indian, and Fijian licence-holders numbered 166. Equipment has been ordered for a new and more powerful medium- and short-wave station and a new studio is being built.

II. PRODUCTIVE ACTIVITIES

Agricultural Conditions and Methods

It is estimated that of a total land area of 4·5 million acres only about 1·3 million acres or 30 per cent, is suitable for agricultural and pastoral development. Much of this land is of poor quality, and only some 320,000 acres are devoted to arable farming.

In general four classes of land may be recognised: the alluvial soils of the broad flood plains of the larger rivers, which are the richest of the colony and support sugar cane, rice and dairy farming; coastal fringes of sandy and loamy soil on Vanua Levu and most of the smaller islands, which support the coconut crop and native food crops of the colony; the narrow valleys on the upper courses of the river systems, which are planted with bananas and food crops; the rolling to broken hill country up to the foot of the main ranges, which affords rough grazing and limited and precarious cropping.

The main areas of sugar production are in the dry zone, particularly in Penang, Mba and on the Singatoka river flats, and in the Lambasa area of Vanua Levu. A limited amount of sugar is also produced on the alluvial flats of Rewa Province in the wet zone.

Outside the sugar areas of the two main islands in the dry and intermediary climatic zones mixed farming is practised. The principal crop is rice, but pulses, groundnuts, maize, pineapples and vegetables are also produced. Groundnuts are produced in Ra, Mba, and Singatoka Provinces. The main area of pineapple production is Nandi.

Copra is produced from Fijian smallholdings on the coastal fringes of Vanua Levu and the outer islands of Lau and Lomaiviti. European plantations exist at Taveuni and Savu Savu.

The greatest concentration of dairy stock is on the coastal flats and alluvials of the Navua river. In Nandronga-Navosa, Mba and Ra Provinces cattle are raised on European holdings. The Colonial Sugar Refining Company has a ranch of 18,000 acres at Yanggara, and another company has 30,000 acres. Other areas of 1,000-5,000 acres in Viti Levu produce a few cattle for the local trade, and a number are also produced on coconut estates in Taveuni and Savu Savu.

European holdings in Tailevu and Navua produce about half a million pounds of butterfat per annum.

Before the advent of European settlers the Fijians maintained a self-sufficient economy based on a system of shifting cultivation similar to that practised by indigenous peoples of Africa, Malaya and Ceylon. Now fertility can only be maintained by a settled form of agriculture based on the rotation of crops, the use of fertilisers and by the incorporation of livestock into the system either in a form of alternate husbandry using a short ley or by the raising of fodder crops for silage feeding and the production of compost by the modified Mauritius method. The necessity of adopting new systems of cultivation is being stressed by the Department of Agriculture, which is also experimenting with artificial fertilisers with a view to determining the minimum economic dressing necessary to maintain fertility.

Mechanised cultivation is developing slowly. The Colonial Sugar Refining Company and several of the larger cane farmers own tractors, and a few coconut planters use tractors for haulage and power. Following the Department of Agriculture's work in making available full information on tractor equipment and the demonstration of such equipment at experimental stations much more interest is being shown in mechanisation, particularly by Indian farmers. The majority of peasant farmers are, however, still dependent on bullock draft and single furrow ploughs. Crops are harvested chiefly by hand, and the rice crop threshed by trampling bullocks or by flail. The Department of Agriculture is pursuing enquiries regarding the development of small scale harvesting equipment used on experimental stations in Australia and which may be adaptable to peasant farming requirements.

Except in the cane areas standards of land preparation, cultivation and weeding are not good. It is estimated, for example, that the carrying capacity of large areas of the cattle country has dropped from one beast to five acres to one beast to 10 acres owing to the deterioration of pasture due to weed growth. A great deal of work has been done by the Department of Agriculture employing both biological and chemical means of weed control. Closer settlement, better farming and grassland management will further the success of these measures. As a consequence of poor fencing much damage is done by stock trespass.

Among other limiting factors are the insecurity of tenure of lands under lease to peasant farmers and the general lack of cheap agricultural credit. The former may be removed by legislation, and as regards the latter a sum of £150,000 has been set aside in the Colony's Development Plan as the nucleus of an agricultural credit scheme.

Local Food Products

The Colony's main food products, grown principally for home consumption and local sale, include native root crops (yams, taro, tapioca, kumalas and kawai), bananas, plantains, citrus fruits (oranges, mandarins, grapefruit, lemons and limes), pineapples, tropical fruits (breadfruits, pawpaw and coconuts), rice, maize, pulses, peanuts, drug crops (tobacco and kava) and animal products (beef, goat meat, pork, poultry, butter and ghee). A more recent development is the production of margarine. These foods are produced principally for domestic requirements, but in some cases there is a surplus for export.

Production to meet the increasing local demand has been a major concern of the Government during the past few years, and efforts have been directed to improvements in methods of husbandry and to the extension of areas under the principal food crops. The need to improve nutritional standards and the pressure of increasing population also make it necessary to enlarge the total area under crops.

Rice.—Total production of rice is estimated at 20,000 tons, of which it is estimated that Indians produce about 94 per cent from smallholdings worked by themselves and their families. Within recent years the Fijians have acquired a liking for this food and many are now cultivating small plots.

Before 1939 most of the rice of the Colony was cultivated outside the cane areas, but during the war period growers were advised that the sugar cane fallows, where possible, should be used for the production of food, principally rice. Production on cane farms has continued since the war and has contributed largely to the measure of self-sufficiency which has been achieved.

On Viti Levu the chief rice producing districts are the north and west coasts from Viti Levu Bay to the Singatoka River, and the Navua, Rewa and Tailevu districts. On Vanua Levu rice is grown principally along the coast of Mbua and Mathuata provinces. The individual acreages and localities for the four years to 1950 are set out below :—

ACRES PLANTED IN RICE

District	1946	1947	1948	1949	1950
Southern District					
Naitasiri Province	168	61	591	537	
Rewa Province	556	516	472	499	
Serus and Namosi Provinces	1,108	1,137	1,216	1,602	
Tailevu Province..	833	759	1,278	1,434	
Cane Farmers (Rewa)	2,266	2,453	2,590	3,140	
	4,931	4,926	6,147	7,212	9,513
Western District					
Mba Provinces	5,796	4,756	6,968	6,512	
Nandronga-Navosa Province	1,825	1,615	1,784	2,479	
Ra Province	1,289	1,237	1,258	1,490	
Cane Farmers (Penang, Rarawai, and Lautoka Mills)	7,487	7,101	10,729	10,770	
	16,397	14,709	20,739	21,251	18,978
Northern District					
Mathuata Province	2,725	2,222	3,331	3,544	
Mbua Province	854	885	962	1,257	
Thakaudrove Province	445	433	424	387	
Cane Farmers (Lambasa)	1,847	2,271	2,872	3,175	
	5,871	5,811	7,589	8,363	8,017
Total for the Colony	27,199	25,446	34,475	36,826	36,508

Except in a few localities rice is not irrigated but drainage and irrigation schemes are provided for in the Development Plan. Yields vary from 2-3 cwts of paddy per acre for upland rice to 1½ tons per acre on the irrigated areas at Votualailai ; the average yield is estimated at about 10 cwts of paddy per acre. Careless preparation of the land for planting, the use of contaminated seed and the neglect of early weeding are mainly responsible for the low yields.

Most of the rice, which is produced on holdings averaging about 3·8 acres, is consumed by the peasant farmer and his family, but about 2,000 to 2,500 tons is sold in the markets of the main towns of the Colony for consumption by the urban population.

Maize

It is estimated that the present area under this crop is not more than 1,500 acres. It competes with groundnuts for the land and labour of the peasant farmer and, during the groundnut boom, has been neglected.

Maize grows very well on the alluvial flats of the dry and intermediary zones and yields of 40 to 50 bushels have been obtained on the Singatoka Agricultural Station ; yields elsewhere in the Colony are generally low—less than 20 bushels per acre—due to poor farming, particularly lack of inter-row cultivation.

There is no doubt that a good market exists in New Zealand but expansion for export would necessitate drying equipment and tank storage. This crop cannot be associated with sugar cane on account of downy mildew.

Where soil is satisfactory the crop is remunerative to the peasant farmer and it is likely to extend if the demand in New Zealand for groundnuts diminishes : the main market would be in New Zealand but larger quantities than are at present available could be consumed locally for poultry and pig raising and as a substitute for sharps.

Groundnuts

Groundnuts grow well in the Western District and have been cultivated for a number of years as a local food crop.

It is estimated that about 1,700 acres are devoted to this crop but yields are low. In the Nawasamu area yields of only 300 to 500 lb. per acre have been recorded and in Nandronga-Navosa less than 400 lb. per acre is the average. The reasons for these poor yields in Fiji are continuous planting at all seasons, neglect of cultivation at the right stage, poor, worked-out soils and the absence of any management practice involving crop rotation.

At the commencement of the 1949 season, local prices were 4d. per lb. for small and 5d. per lb. for large groundnuts. By the end of the year these had recovered to 6d. and 8d. per lb. respectively. The average value for export was 5½d. per lb. f.o.b. Suva.

Pulses

These very valuable nutrition crops are grown mainly by Indian farmers in the Western District. Despite a large Indian population in the Lambasa area of Vanua Levu, pulses are usually in very short supply on that island.

The pulse crops consist mainly of pigeon pea (*cajanus indicus var. bicolor*), cowpea (*vigna catiang*), mung and urd (*phaseolus Mungo vars*) and arhar. The pulses contain good quality protein and are either cooked and eaten as a vegetable or sweet meat, or incorporated with the other constituents in an Indian curry.

The area under pulses is estimated at about 9,000 acres and the greater proportion of this is devoted to pigeon pea, which is grown partly as an inter-crop for rice, maize or sugar cane, and partly as pure crop. The bulk of the crop in Mba Province is grown with rice as a mixed crop in young sugar cane ; Nandi farmers prefer to cultivate pulses as a pure crop. Excellent crops of pigeon pea are obtained on cane soils in the Western District and the average price was in the region of 1s. per lb. in 1949 ; cowpea and mung sold at 8d. per lb.

The pulse crops are extending rapidly and it is hoped that more attention will be given to them on the island of Vanua Levu. Fijians have not so far shown much interest in this crop and, with the Polynesians, display a distinct dislike for pulses as an article of diet. Soya bean is not favoured either by Indian or Fijian.

Formerly large quantities of mauritius bean (*Stizolobium atterimum*) were produced for export to Queensland, where the bean was used, as in Fiji, as a green manure crop. The trade declined before the war owing to the use by Queensland farmers of other leguminous plants. Rice bean (*Phaseolus calcoratus*) and also cowpea are used extensively in Fiji as green manure crops.

Root Crops

The traditional root crops of the Fijians are the several taro and yam varieties. To these have been added in more recent years kumalas, tapioca (manihot species) and the Irish potato.

The acreages under these root crops cannot be determined with any accuracy since there are no large-scale plantings. They are grown in thousands of small "teitei" (Fijian gardens), usually with other crops.

The main root crop of the Fijian is ndalo, or taro as it is called in Polynesia ; there are many varieties. Two main divisions can be made between ndalo which prefers wet land and that which grows on freely draining land. So far no varietal studies have been made, although this matter and the varieties of other root crops are receiving attention on the Principal Agricultural Station.

Estimates of acreages of root crops are shown in the following table :—

Approximate Acreages under Root Crops

Sweet Potatoes	600
Ndalo	12,000
Tapioca	14,000
Arrowroot	30
Yams	3,000

In recent years, however, large quantities have been moving into the main towns of the Colony to meet the growing demand of the increasing population. Industrial development in Suva and in the goldmining area, where Fijian labour is employed, is also enhancing the demand. There is a tendency also for the Fijian to neglect his " teitei " for the more lucrative returns from copra production and to some degree the Fijian is now becoming a purchaser of food either from retail stores or markets. Root crops have therefore left the category of subsistence crops and are rapidly becoming local cash crops.

Only small quantities of root crops are now exported from the Colony. Before the war a limited but growing market occurred in New Zealand, but owing to the presence of weevils (*Cylas formicarius F.* and *Euscepes postfasciatus Frm.*) and the resultant danger to the New Zealand kumara crop, Fiji sweet potatoes were excluded from the New Zealand market.

The cassava, or tapioca, which was introduced many years ago, is now widely grown by the Fijians as an article of food. The plant usually reaches maturity in 12 to 15 months, although the early maturing variety takes seven or eight months.

The Irish potato grows well in the Singatoka valley during the cool months of the year and some 100 acres are devoted to this crop each year. By the use of good quality seed, good cultural practices and the control of cut worm yields up to 10 tons per acre can be secured. Without these practices, average yields of 3½ tons per acre are obtained. Graded potatoes realised £20 per ton in 1949.

Vegetables

During the cooler months of the year, particularly from June to October, a range of European vegetables, including cabbage, Indian cauliflower, peas, beans, lettuce, tomatoes, leeks, carrots, parsnips, radish, pumpkin and marrow, can be grown in most parts of the Colony. The production of vegetables for sale is mainly in the hands of Chinese market gardeners.

No reliable statistics regarding yields are available but work is in progress on the Principal Agricultural Station to obtain this information. Provided the green vegetable bug and other pests are controlled by derris powder and D.D.T., fair yields are obtained by the use of artificial fertilisers. The shortage of imported organic fertilisers, on which the larger market gardeners supplying Suva have come to depend, continues to have an adverse effect on the quality and yield of the crop and the length of the season.

Most of the supplies to the Suva market come from the marl soils of the Suva Peninsula Much erosion has been caused on these soils, which are heavy and have low reserves of plant food, by the growing of vegetables and root crops on sloping country. Vegetables and other food crops for the Suva market could be cultivated on the alluvial and delta soils of the lower Rewa.

Tobacco

Tobacco is a very useful local cash crop and about 500 acres are cultivated annually. The crop is mainly confined to the Nandi and Singatoka districts. Yields of 800 lb. per acre are normally secured, provided cut worm damage is not serious. Other diseases of some economic importance are mosaic (often widespread) and frog-eye leaf spot.

Tobacco grows luxuriantly in the Colony and the Department of Agriculture has shown on the Singatoka Experimental Station that good quality leaf of the best varieties can be grown and that, by proper curing, excellent tobacco can be produced of the cigar filler type. Many varieties are grown by the small-holders but there is a preponderance of poor types suitable only for the manufacture of trade twist which is sold in large quantities on the local markets.

During 1948 a new tobacco curing venture commenced operations at Korotari in the district of Lambasa. By arrangement with farmers half-acre plots were planted with selected varieties including Gold Dollar, Cash and Virginia Bright. Seedlings are raised by the firm for distribution to selected farmers. A flue curing barn, designed on the Rhodesian pattern, has been constructed and has a capacity of 4,000 lb. of green leaf, equivalent to 500 lb. of cured tobacco, per fortnight. This venture may do much to bring about improvements in methods of cultivation, harvesting, curing and preparation of the leaf for the market.

The price of tobacco leaf varied between 1s. 6d. and 3s. per lb. in 1949.

Minor Food Products

Fruits of the usual tropical types are grown mainly in the higher rainfall areas and, in season, adequate supplies are available.

An area of approximately 240 acres is planted with mustard and sesame for the production of food oils which are extracted from the seed by wooden presses. Much of the fruit is consumed by the grower but increasing quantities are milled at Lautoka and Nandi for local sale. Groundnut and coconut oils are also produced for family consumption and local sale.

Livestock

A livestock census begun in 1949 and completed in 1950 shows the livestock population to be approximately as follows :—

Horses	16,000
Cattle	81,000
Pigs	9,000
Poultry	134,000
Goats	24,000

The cattle population has thus fallen by some 4,000 since the previous stock census in 1942.

Dairy Cattle

The area devoted to dairying including milk production for urban areas is not more than 15,000 acres, but this, with the peasant farming areas producing milk and ghee for domestic consumption, has provided much needed food products of high nutritional value.

The following table sets out the butterfat production by the recognised factories for the years indicated :—

FACTORY PRODUCTION OF BUTTER

Year	*Butterfat lb.*	*Butter lb.*	*Ghee lb.*
1939	419,536	422,208	84,728
1943	547,593	712,936	12,354
1945	462,125	478,754	6,954
1948	480,524	594,301	6,717
1949	449,657	565,962	6,805
1950	385,869	480,750	10,493

These figures are taken from factory returns and do not include the ghee production by peasant farmers. No accurate estimate of the quantity produced can be given, but it is not far short of 1,000,000 lb.

There has been a considerable falling off in production due to pasture deterioration and local production does not now meet the demand of the increasing population who are able to buy butter or ghee. An indication of the short-fall in supply can be obtained from the quantities imported from New Zealand and Australia which in 1950 amounted to 211,382 lb. of butter and 174,549 lb. of ghee.

The main deterrents to pasture improvements on dairy farms are lack of sub-division and poor drainage. There has been much improvement during the past three years in weed control and some extension of the area under para grass has taken place ; there is still much to be done in the way of improvement of hill pastures and the establishment or renovation of meadow pastures. Good land under food and cash crops gives greater production per acre than butter or milk and there is not likely to be any significant increase in large scale dairy farming of the type which now exists in the Tailevu and Navua areas.

Attempts to establish new grasses and legumes have made only slow progress. The demand for many of these is good but seed is not as yet available in sufficient quantity. In most cases the carrying capacities, persistence, and nutritional value of the more recent introductions have still to be worked out by the Department of Agriculture, and these uncertainties dictate a cautious policy. The deterioration that took place during the war years will take some time to overtake and recovery is bound up with the present-day costs of labour and materials.

An investigation of the dairy industry by an overseas authority has shown that although a slight increase in the price of butterfat was called for, the main reasons for the decline of the industry are :—

(*a*) Poor fencing, drainage and sub-division ;
(*b*) poor pasture species and poor pasture management ;
(*c*) excessive labour costs resulting from hand milking ;
(*d*) poor herd management, particularly concentrate feeding of unproductive animals, and
(*e*) lack of associated industries such as pig and poultry raising.

European breeds of dairy livestock do well in Fiji if they are given reasonable care and attention. Friesian, Jersey and Dairy Shorthorn are the most important breeds in Tailevu and Rewa, and excellent grade Friesians are dominant on the Navua pastoral areas.

Butter-fat production per lactation period on European farms in Taileru and Navua average respectively 100 lb. and 160 lb. and under careful management of herd and pasture higher yields are obtained. For example, one of the component farms of the Fiji Pastoral Company, with 90 acres of grazing carrying 65 head of milking cows, was producing 164·3 lb. of butter-fat per cow per annum. The pasture was old and weedy and the ground wet from poor drainage. This farm was completely rehabilitated by draining, planting with new para grass and subdivided into 18 five-acre paddocks. By rotational grazing, production was brought up to and is being maintained at 215 lb. per cow for the same herd.

Milk production from local herds is not much in excess of 8 lb. to 10 lb. of milk per cow per day. By herd and grass management and concentrate feeding up to the productive limits of the cow, average yield of 24 lb. of milk can be obtained from the Friesian herd on the Government Agricultural Station at Singatoka. The stock of peasant farmers contains a high proportion of Zebu blood of the beef strain, rather than of the milking strain, and milk and butter-fat production are much lower than that of European breeds. Improvements are necessary and these should take place through the introduction of fresh European blood.

Much attention has been given in recent years to the effect of climate on European breeds of livestock in the tropics, and research on breeding has been directed to the incorporation of types of Bos Indicus with European breeds in order to combine the quantities of beef or milk production of the European cattle with the heat tolerance of Indian cattle. Some success has been achieved with the Shorthorn Zebu crosses for beef, particularly the Santa Gertrudes breed, which was developed on the King Ranch in Texas. So far true breeds for milk production, with high yielding characteristics, have not been secured by crossing the Sahiwal milk breeds of Zebu with European types, but it has been shown that, by good feeding and management, milk and butterfat yields approaching those in temperate countries can be obtained from European dairy stock.

The quantity of butterfat and milk likely to be secured from European dairy stock under a high plane of nutrition or, conversely, the actual effect (if any) of climate on European livestock production in the tropics is being determined by a co-operative experiment between the Animal Research Station of Ruakura, New Zealand, and the Singatoka Agricultural Station in Fiji. Eight sets of identical twin-calves have been secured and one member of each set is located at Ruakura and Singatoka. Both groups of animals are fed on New Zealand rations and in all other respects are treated similarly. Growth rates, blood analyses and counts are measured, and later, when lactation commences, milk constants and quantities will be determined. After two to three lactations some qualitative measure may be given to the effect of climate, and this experiment should be of considerable importance in determining breeding policies.

Beef Cattle

Beef cattle were formerly raised on a few estates on the western range country of Viti Levu, particularly in Ra, Mba and Nandronga-Navosa, and in Mbua on the island of Vanua Levu. At the present time the production of beef cattle under range conditions is confined to two main areas on Viti Levu, namely, at Yanggara and in Nandronga. The production of " fats " has almost entirely disappeared as a livestock industry.

The greater part of the Colony's supply of beef before the war came from surplus stock raised by Indian farmers, cattle from coconut estates (where they were used to keep down weed growth) and dairy-raised steers. Cattle from these sources were purchased by dealers and fattened on the para grass flats of Rewa and Singatoka. To-day the main source is from surplus stock raised by Indian farmers and the quality of this beef is poor.

During the war years deep inroads were made into the breeding stock of the Colony to feed the many troops stationed in Fiji, and to meet the increasing demands by the Fijians for beef. Moreover, the shortage of fencing wire during the war years and the mounting costs of materials and labour, made it difficult to manage pastures by subdivision and keep off stock from other weeded areas. The immediate result was the deterioration of the fattening areas. Later a considerable falling off in range grazing lands also took place. There is no doubt that pasture land was progressively deteriorating over a number of years but, as long as population permitted, fresh areas were available for exploitation. Now, although there still remains fairly extensive areas of hill grazing, fattening flats are rapidly diminishing in extent as the increasing population makes demands on land for the raising of cash crops with higher returns per acre.

The deterioration in the beef position was realised in 1943 and steps were taken to control killings and introduce quotas. These measures were helpful and positive recovery would have been effected if increased quotas of fresh and canned meat could have been obtained from New Zealand. At the beginning of 1950 a system of reduced monthly quotas was in operation with a beefless day once a week. The slaughter of female cattle under the age of eight years and steers under the age of three years is not permitted.

The following table shows the number of beef animals passing through registered slaughter-houses since 1943, the position regarding restrictions, and average dressed weights for 1948 and 1949 (For exports of hides see page 98) :—

BEEF CATTLE KILLED IN REGISTERED SLAUGHTERHOUSES

Year	*Number killed*	*Average weight in pounds per beast*	*Remarks*
1943	5,240	Not available	Quota system introduced.
1944	4,329	"	Restrictions on age, weight and sex of killings.
1945	6,373	"	" " "
1946	7,745	"	Restrictions lifted.
1947	9,364	"	" "
1948	6,267	388 pounds	Restrictions reimposed.
1949	4,933	440 pounds	
1950	4,461	N.A.	

N.A. = Not available.

There are considerable areas in Ra and Nandronga which by careful management would be capable of raising beef cattle. Much of this land is impossible for arable farming and is capable of little else except controlled grazing or afforestation. Fattening lands are a problem but, if sufficient incentive is given in the way of a good price for quality beef, action may be taken in the clearing of weeds, particularly guava, from the flats of the Singatoka River. Government is giving thought to schemes involving the utilisation of Fijian land in the Ra and Nandronga-Navosa Provinces.

Sheep.—Sheep-raising has been tried at several periods in the history of the Colony in the dry zones of both main islands, but has not become a prosperous industry due to the wet climate and to internal parasites. Other factors, probably of a nutritional nature, have an effect on reproduction and wild dogs cause considerable losses. With more efficient control of internal parasites and improved nutrition, it is likely that better results may be secured with long-legged breeds of mutton producers ; experimental work of this nature is being undertaken on Government Agricultural Stations.

Goats

The breeding of goats is largely carried out by Indians, although a few Europeans in Mba are giving attention to this lucrative trade. There is a steady demand from the Hindu population for goat meat. Goats are also raised on several coconut plantations as a means of weed control.

The serious regression of the pasture lands of the Colony, mortality and loss of condition due to internal parasites, lack of selection of good sires and the non-castration of young males, have all caused a general falling off in the industry. A few individual farmers have introduced fresh blood and are attempting to raise goats under better conditions.

The average carcass weight of goats is about 17 lb. which is extremely light, and the price of goat meat is seldom below 2s. 6d. per pound.

Pigs

Large White, Berkshires and Tamworths do well in Fiji, but until about 20 years ago little attempt was made to breed pigs scientifically. There has been much improvement in recent years and, by keeping the pigs on concrete, a great reduction in the incidence of kidney worm has resulted.

The price of pork is about 1s. per pound, which offers a fair return where pigs are run as a sideline to consume skim-milk on dairy farms and offal from slaughter-houses ; but lack of suitable pig feed and, in particular, a dependable source of animal protein, limits the development of the industry. By supplementing the normal supplies of animal protein with roots, maize, groundnut and coconut meal it may be possible to overcome this limitation.

Poultry

Although poultry and eggs are produced in large quantities in the Colony, these important foodstuffs are usually in short supply. The price of eggs during 1949 seldom fell to 3s. a dozen and at times 5s. 6d. was obtained. Live birds for the table sell at 2s. a pound and the retail price of dressed poultry is usually slightly above 4s. a pound.

Commercial poultry-raising and " back-yard " enthusiasts continued to build up the flocks of the Colony by the importation of day-old chicks of Australorps, White Leghorns and Rhode Island Red breeds. In all some 21,889 day-old chicks were imported in 1951 from Australia and New Zealand, together with 53 adult fowls, some ducks and turkeys.

In pursuance of its livestock policy, the Department of Agriculture imported large numbers of ducks and fowls to form foundation flocks on the new Agricultural Stations. Lack of suitable foodstuffs is a difficulty in poultry production and, as with pork, suitable high quality protein is costly and difficult to obtain. Attention has been given to this problem by the Animal Husbandry branch of the Department and balanced rations have been worked out using local materials, including maize, peanut meal, rice bran and a limited supply of blood meal manufactured by the Department from slaughterhouse waste.

Cash Crops

The principal export crops of the Colony are sugar, copra and copra products, bananas and pineapples. Minor exports include groundnuts, ginger, root crops and vegetables, rice bran, tapioca, starch and hides.

Sugar

In the early seventies of last century experiments in the production of sugar were encouraged by the price of sugar then obtainable and the ease with which sugar cane could be grown on most of the soils of the Colony. After the crisis of 1884 when there was a sustained slump in sugar prices only the more efficient firms continued in production. Subsequent withdrawals and amalgamations have resulted in there being at present only one Company—the Colonial Sugar Refining Company.

A large part of the good lands of the Colony is devoted to sugar cane production and includes some 12,000 acres of alluvial flats of the Rewa valley, about 60,000 acres in the Mba and Lautoka districts (extending from the Tavua River to the Singatoka River and covering about 130 miles of coastline), 6,000 acres in the north-eastern area of Viti Levu at Penang and 13,000 acres of low alluvial flats in the Lambasa area of Vanua Levu, extending along 35 miles of coastline.

The Colonial Sugar Refining Company owns about 67,000 acres of freehold land of which 21,000 acres are considered suitable for the production of sugar cane, and of which 19,000 acres are leased to growers. The Company also holds under various forms of leasehold from the Native Land Trust Board and from private owners, 81,000 acres of land of which 29,000 acres are considered suitable for growing sugar cane, and of which 27,000 acres have been sub-leased to growers. Thus, the total area of land under the control of the Company amounts to 148,000 acres, of which 50,000 acres are cane land and 46,000 acres are leased to growers. It is estimated that 97 per cent of sugar cane grown in Fiji is produced by small contractors and peasant farmers.

In a normal season the capacity of the mills is approximately as follows :—

Nausori	19,000 tons
Lautoka	71,500 ,,
Penang	12,000 ,,
Rarawai	46,500 ,,
Lambasa	22,500 ,,
	171,000 ,,

This total has not yet been reached ; the maximum output in any one season was 149,000 tons in 1937. (See also page 100.)

The total fixed assets of the Colonial Sugar Refining Company, excluding land, were valued at £5,238,000 in 1949. The basis of valuation is the cost of replacement of existing equipment on 1941 and 1939 prices plus cost of additional plant since 1941. New equipment and actual replacements have been included at cost.

Over £2,000,000 has been invested by the Company in transport ; the long distances from farm to factory necessitate light railways, locomotives and rolling stock or of floating plant, such as launches or lighters, where cheaper water carriage can be used. At the end of 1949 there were some 400 miles of permanent railway line and 162 miles of portable line for bullock or horse traction of cane from field to permanent way. The Company then owned 50 locomotives, 5,638 trucks, 61 punts and seven steam launches. In addition, a large number of lighters and trucks were available for the transport of sugar, molasses, coal, limestone, ballast and general cargo.

Comparative figures of acreage, tonnage of cane crushed and tonnage of sugar exported for the past seven seasons are :—

SEASONAL PRODUCTION AND EXPORTS OF SUGAR 1937-38 AND 1942-43 TO 1950-51

Season	*Area cropped acres*	*Cane crushed tons*	*Sugar exported tons*
1937–1938	47,319	1,338,183	134,415
1942–1943	50,792	1,024,221	128,880
1943–1944	23,842	434,585	54,774
1944–1945	34,298	494,360	59,973
1945–1946	29,687	455,980	50,470
1946–1947	41,849	823,162	111,573
1947–1948	50,940	1,071,531	135,314
1948–1949	44,848	976,765	124,915
1949–1950	45,127	973,759	115,724
1950-1951	44,629	723,738	85,223

The export tonnages are not an exact indication of sugar production for the years concerned since the carry-over of sugar in store affects the export figure. Domestic consumption of locally-produced sugar is of the order of 9,000 tons (1950).

Export of sugar by calendar years are shown below :—

EXPORT OF SUGAR 1938-51

Year	*Tonnage*	*Value*
		£
1938	134,415	1,338,183
1939	118,470	1,425,704
1940	93,631	1,285,191
1941	70,328	942,920
1942	131,294	1,761,055
1943	92,528	1,345,286
1944	67,252	1,035,616
1945	30,504	536,201
1946	106,274	2,111,557
1947	112,433	2,840,307
1948	149,494	4,265,406
1949	110,968	3,205,524
1950	114,254	3,750,712
1951	72,955	2,625,273

In the Lambasu area fields of up to 17 tons per acre are recorded on fertilised land, and in Penang and Mba, and on the Singatoka river flats fields in excess of 40 tons of plant cane per acre are usual.

Since most of the sugar cane in Fiji is produced in a rainfall belt of 80 in. to 90 in., the sucrose content of the juice is good ; on the average seven tons of cane produce one ton of 94 N.T. (net titre) sugar.

The United Kingdom Government has undertaken to find a market for the exportable surplus of Commonwealth sugar from 1st January, 1948 to 31st December, 1952, at prices to be negotiated annually. The price paid for sugar by the Ministry of Food during 1949 was £27 5s. 0d. (Sterling) per ton, of which £1 15s. 0d. was paid into a stabilisation fund. The price for the 1950 crop was fixed at £30 10s. 0d. (Sterling) per ton and that for the 1951 crop at £32 17s. 6d. per ton with the same deduction for the stabilisation fund.

In December, 1951, following negotiations begun in 1950, a multilateral Commonwealth Sugar Agreement was signed in London by the U.K. Minister of Food and representatives of Commonwealth Sugar Producers. The agreement confirmed understandings previously reached and extended their operation to 1959. Under the terms of the agreement, Fiji agreed to limit exports to 170,000 tons annually and the United Kingdom agreed to buy 120,000 tons at reasonably remunerative prices to be negotiated annually. This amount is increased to 125,000 tons for so long as the agreement remains in force—at present to December 1958—by which New Zealand has a share in the quantities purchased. The remaining 45-50,000 tons are to be freely disposable in the open market. Provision was made in the agreement for a review in 1953 of the export quotas and of amounts to be purchased at the negotiated price. For 1952 the Commonwealth price was fixed at £38 10s. per ton.

There are no sugar refineries or distilleries in the Colony ; 19,551 tons of molasses, valued at £19,553, were sold in 1951 to distilleries of the Colonial Sugar Refining Company in Australia for conversion into alcohol.

The price paid by the Company for sugar cane has been in accord with the 1940 agreement between the Company and cane suppliers ; this agreement expired on 31st December, 1949. Under this agreement the Company paid at all mills except Nausori, a delivery price of 11s. per ton for the variety Badila cane, and 10s. for all other varieties, together with the Imperial Preference Bonus of 3s. 6d. per ton. A sweetness payment was also paid, based on the mean percentage of sugar for cane supplied to the particular mill concerned. This payment was made at the end of the crushing season, when the mean percentage of sugar can be assessed. A further and final payment was based on the overseas selling price. A sum of 1s. 3d. per ton was paid for each £1 by which the price of 94 N.T. sugar exceeded £11 per ton.

Professor Shephard, in his report on the " Sugar Industry in Fiji " (1944), considered that the present method of assessing the price of sugar cane should be retained, subject to the addition of the value of molasses to the proceeds of sale. This latter recommendation has been adopted by the Company.

A new price agreement was negotiated in June, 1950. The delivery price and sweetness payment to cane growers remains unchanged but there is a new bonus scale which increases in amount per ton with increases in the price of sugar ; adjustments will also be made in accordance with output. The bonus, which is paid when the price of sugar exceeds £11 per ton, ranges from 1s. 3d. per ton for the first £1 in excess of £11 per ton to 2s. 1d. per ton for each £1 by which the price exceeds £29 per ton.

Based on a yield of 1 ton of 94 N.T. sugar from 7·1 tons of cane, the price of cane will be 47s. 0½d. per ton if the price of sugar is £31 per ton and production up to 120,000 tons per annum ; but it will rise to 48s. per ton if production rises above this level but not exceeding 130,000 tons. Over 130,000 tons the price would be 48s. 10½d. per ton.

The price on which the bonus is calculated in the average of the proceeds of export sales and domestic sales. The domestic price is lower than the export price.

Copra

Copra production ranks as the second industry of the Colony and of special importance in the life of the community owing to the local enterprises of trading, marketing, shipping, oil milling and margarine manufacture, which have grown around it.

Copra production is mainly a Fijian industry and recent developments in organized marketing, such as the Mathuata, Mbua and the proposed Thakaundrove schemes, have increased output and strengthened the Fijians' economic position. Some three-fifths of Fiji copra is derived from small native groves of a few acres or less, on the coastal fringes of Vanua Levu and the outer islands of Lau and Louaiviti ; European plantations exist at Taveuni and Savu Savu. Yields on Fijian smallholdings are of the order of five cwts per acre ; on the European plantations average yields of 10 cwts per acre are obtained.

This industry requires no special cultivation equipment, nor capital assets other than land. The Fijians not only provide the greater part of the labour force required for the coconut estates, but have maintained and increased their own plantings.

As a tree crop of hardy nature, the coconut does not suffer permanent harm from periods of neglect. That part of the industry for which the Fijians themselves are responsible possesses for this reason a particular resilience ; during periods of low prices the Fijian can afford to neglect his smallholding or communal grove to grow his food crops and to rehabilitate his coconuts or bring them back to full production as the price improves. Also the Fijian allows some of the fallen nuts to grow and to the extent that this is allowed, the Fijian grove is self-regenerating with palms of all ages growing together.

Before 1940 the Fijians disposed of the bulk of their production in small quantities to country stores near their villages and in some cases whole coconuts and " green " copra were bartered for goods. The European planter sold this copra to the principal merchandise houses of the group, who disposed of it in the United Kingdom, Europe, North America and Australia. Marketing is now organised by the Copra Board which is a statutory body and works under the Copra Control Ordinance of 1948. Under this Ordinance the Board is given powers to fix the price of copra and control its quality and movement, both internally and externally. The Board consists of the Director of Agriculture as Chairman, the Secretary for Fijian Affairs or his nominee and eight members representing all parts of the industry.*

Copra is purchased from producers by approved agents who are merchants and who originally purchased copra on their own behalf ; they finance all operations and rent their storage facilities to the Board. On the sale of the copra either to the British Ministry of Food or to local crushers, the agents are reimbursed for all charges contracted on behalf of the Board and receive also a fee to cover overhead expenses and profit. The total cost to the Board, for handling and other local charges, is approximately £5 10s. 0d. per ton of copra.

The Board's local purchase prices per ton at Suva and Levuka for 1952 are : Plantation grade (60 points and over), £59 5s. 6d. ; FMS grade (45-57½ points), £59 ; lower grades (35-45 points), £55 15s. to £57 15s. Copra having a grading of 35 points or under will not be purchased in the 1952 season.

Towards the end of 1948, a long-term contract was negotiated with the United Kingdom Ministry of Food which undertook to purchase the exportable surplus of copra for nine years from 1st January, 1949. The price is subject to annual negotiation to the limit of an increase or decrease of 10 per cent (to the nearest 5s.) over the previous year's price. Prices paid by the Ministry (f.o.b.

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* In 1951 a Fijian Development Fund was established deriving from a cess of £10 per ton levied on all Fijian produced copra, the fund to be used for approved development schemes for the Fijian community.

Fijian ports) in £ sterling have been as follows for the years 1949-52 :—

	F.M.S. Grade		
	£	s.	d.
1949	48	0	0
1950	48	10	0
1951	53	15	0
1952	†63	10	0

The Ministry of Food also purchase the exportable surplus of coconut oil, prices for which have been £81, £83 and £88 15s. 0d. per ton respectively for 1949 to 1951, and coconut meal.

Exports of copra, coconuts, coconut oil and meal since 1938 have been as follows :—

EXPORTS OF COCONUT PRODUCTS, 1938-1951

Year	*Copra*		*Coconuts*		*Coconut oil*		*Coconut meal*	
	Tons	£	*No.*	£	*Tons*	£	*Tons*	£
1938	33,475	270,915	313,731	943	152	3,194		
1939	27,361	204,289	140,950	423	197	2,749		
1940	20,379	125,063	55,910	167	146	2,683		
1941	14,918	85,168	16,400	49	105	1,476		
1942	16,861	252,544	632	2	56	1,693		
1943	17,717	318,975	—	—	—	—		
1944	18,927	352,492	—	—	—	—		
1945	23,102	469,177	202,164	612	689	28,230		
1946	16,302	379,760	68,625	205	1,807	74,068		
1947	27,490	966,246	125	1	6,570	440,189	2,482	24,250
1948	21,352	992,234	21,415	161	9,053	760,774	4,391	54,477
1949	13,932	729,943	12,162	220	10,291	916,050	4,933	67,887
1950	10,158	544,401	5,208	71	10,083	946,281	5,009	62,038
1951	15,376	907,920	2,314	64	10,470	1,033,865	5,267	91,367

Within recent years considerable developments have taken place in oil milling and the two local mills are now crushing about 60 per cent of the total production.

The bulk purchasing arrangements and the long-term agreement made with the United Kingdom Ministry of Food has brought a greater measure of stability to the industry than it has hitherto enjoyed. There is confidence in the future which is exemplified by the capital invested in oil milling machinery and the extension of planting by the Fijians. Later developments include the production of margarine. Little new planting is being done by Europeans, who are content to use all available labour for production from existing areas. Although labour is still short, it is probable that the reluctance of the European to extend the area of planting lies in the belief that the day of the large plantation is over. Many of the plantations have passed their maximum productive period and are declining but, fortunately, the natural regeneration of the Fijian groves is offsetting this decline. It is hoped that production will continue to increase from Fijian areas. With the assistance of the extension services of the Department of Agriculture, attempts are being made by the Fijian Affairs Board to secure the planting of more coconuts, particularly in the Northern District. Where possible, selected planting material is being used in order to improve the yield of coconuts per acre.

Bananas

Since 1938 the bulk of bananas exported has been sold to the Internal Marketing Department of New Zealand. Small sales of bunch fruit have been made to Canada in an attempt to test that market and with suitable and more frequent shipping it is likely that there would be opportunities for Fiji bananas in Western Canada. In 1949 test shipments of 7,194 bunches were disposed of in Canada for £1,795.

Exports of bananas since 1938 have been as follows :—

BANANA EXPORTS, 1938-1951

Year	*Bunches*	*Value*
		£
1938	314,925	73,578
1939	114,580	26,411
1940	180,580	41,747
1941	94,648	21,887
1942	183,346	42,400
1943	154,034	38,508
1944	74,358	18,565
1945	156,018	42,954
1946	173,868	49,988
1947	242,206	72,867
1948	289,371	94,996
1949	332,358	119,024
1950	260,588	101,869
1951	338,356	136,956

Small exports of dried bananas have also been made since 1947.

Most of the bananas are produced on the island of Viti Levu in the southern areas of the high rainfall belt. A small quantity comes from Singatoka and from the islands of Kandavu, Mbengga and Koro.

The fruit is purchased by licensed exporters at selected packing stations in the growing areas at prices which are fixed from time to time by a Board representing the Government, Fijian producers and exporters. Before 1939 the prices fixed were based on open market prices in New Zealand ; at present fruit is purchased by the New Zealand Government on an f.o.b. basis and the price is fixed by negotiation.

From early beginnings (£97 value in 1875) there was slow but steady expansion in the banana industry until the peak was reached in 1914 when 1,715,766 bunches were shipped to Australia and New Zealand.

Output dropped to 700,000 bunches in 1915 due to storms and floods, but production recovered and was maintained at about 1,000,000 bunches annually until 1919. In that year serious shipping strikes in Australia led to the discontinuance of the direct Suva to Australia fruit shipping services. It was evident also that a decline in productivity of plantations had taken place because of pests and diseases, probably associated with a failure to maintain soil fertility at the high level required by such a gross feeder as the banana plant.

In the early 1920's the remaining Australian market was virtually closed by duties imposed to protect the Queensland and New South Wales industries. New Zealand remained the principal market, but severe competition by Fiji, Samoa, Tonga and the Cook Islands brought chaos to marketing arrangements and culminated in the introduction of a quota system in 1932 and the reduction of the trade to its present dimensions.

It now seems likely that Fiji will be able in the course of the next five years to double its sales on the New Zealand market and the industry is being slowly brought up to this output. A new refrigerated vessel with a capacity of 30,000 cases monthly commenced operations on the fruit trade between New Zealand, Fiji, Samoa and Tonga in 1952, and it is expected that Fiji produce will occupy one-third of the capacity of this vessel.

Research work by the Department of Agriculture has resulted in the more important diseases and pests of the banana being brought under control. Rehabilitation of existing Fijian areas and the planting up of new banana lands are taking place under the guidance of the agricultural extension services with a view to meeting an expansion of demand.

The banana industry is of considerable importance to the Fijians of the Southern District of the Colony. As a semi-permanent crop it fits into the agricultural system and can be associated with cocoa cultivation. Developments along these lines are expected. The industry suffered much damage as a result of the hurricanes of February, 1952.

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† Plus £1 10s. per ton to liquidate balance of £3 per ton deducted in first year of contract in consideration of security offered.

Pineapples

Fresh pineapples are exported to New Zealand during the season but there has been little expansion of this trade due to losses from soft rot disease. This disease is most severe on the eroded soapstone soils of the Suva peninsula and the prevalence of the disease is encouraged by the careless handling to which this fruit is subjected. It is clear that much closer attention will have to be given to field sanitation and more careful handling and packing if the New Zealand market is to be retained. It is likely also that new areas will have to be planted and some restrictions imposed on export from areas where the disease has a high incidence.

Exports of pineapples and pineapple juice since 1938 are shown in the following table :—

EXPORTS OF PINEAPPLE AND PINEAPPLE JUICE, 1938-1951

Year	Fresh Pineapples		Tinned Pineapples		Pineapple Juice	
	Cases*	£	lb.	£	lb	£
1938 ..	867	326	134,957	1,644		
1939 ..	1,816	682	520,553	7,311		
1940 ..	529	199	487,783	7,647		
1941 ..	1,222	459	1,297,206	25,630		
1942 ..	265	100	874,241	17,040		
1943 ..	341	128	2,176	42		
1944 ..	1,363	510	871	19	65,404	1,724
1945 ..	6,337	2,376	307,950	7,850	43,724	1,102
1946 ..	7,010	5,231	277,543	7,406	22,908	645
1947 ..	7,176	4,303	551,488	15,896	117,635	3,534
1948 ..	5,641	3,683	930,186	30,909	103,762	3,641
1949 ..	3,276	2,161	1,542,911	62,200	415,328	13,046
1950 ..	890	592	1,289,127	54,140	554,626	13,811
1951† ..	164	108	776,759	44,108	438,443	12,129

* Case : 6 lb. net.

Two canneries are at present in operation. One at Lautoka, on the western coast of Viti Levu, and one at Wainaloka on the island of Ovalau.

With road development, particularly in the Mathuata province of Vanua Levu, it is likely that the pineapple industry will continue to develop during the next 10 years. The soils in the Seanggangga area of this province have already been tested for pineapple production and excellent crops have been obtained. These soils will respond to the treatment already worked out for the Nandi soils and, by similar management, could support production at a high level.

Minor Export Crops and Products

Groundnuts.—Exports of groundnuts first appeared on the Fiji produce export lists in 1945 and by 1947 this trade had reached considerable proportions. The following table shows the volume and value of exports in recent years :—

GROUNDNUT EXPORTS, 1947–1951

Year	Quantity	Value
	(tons)	£
1947	543	40,350
1948	265	19,973
1949	283	22,187
1950	74	5,510
1951†	84	8,718

It is likely that, in the competition for land, maize will succeed groundnuts if the price of the latter drops much below 6d. per lb. f.o.b. With cheaper groundnuts arriving in New Zealand from India further development in the local export industry is unlikely.

There is an increasing demand for groundnuts and groundnut oil in the local market and groundnut meal, when available, is used by livestock farmers as an excellent source of protein.

Rice Bran.—Interest has been shown in this product by New Zealand buyers for incorporation in stock foods particularly in 1947 and 1948 when big demands were being made on New Zealand livestock production. The quantity exported dropped in 1949 but subsequently rose as will be seen from the following table :—

RICE BRAN EXPORTS, 1947–1951

Year	Quantity	Value
	(tons)	£
1947	417	3,031
1948	461	3,244
1949	131	3,014
1950	636	4,538
1951†	669	4,716

There is not likely to be any considerable development in this export as total available supplies are not more than 2,000 tons and a large quantity is consumed locally.

Green Ginger.—Exports of Green Ginger since 1938 have been :—

EXPORTS OF GREEN GINGER, 1938–1951

Year	Quantity	Value
	lb.	£
1938	2,800	47
1939	11,089	185
1940	48,602	886
1941	19,204	320
1942	51,760	879
1943	66,124	1,103
1944	63,448	1,055
1945	99,388	1,655
1946	252,466	4,232
1947	242,559	5,437
1948	199,082	3,378
1949	369,704	4,959
1950	139,719	2,170
1951†	42,176	704

Following work by the Department of Agriculture in the improvement of quality, renewed interest has been displayed in this product. It seems likely there will be some expansion of the industry which is to be taken up by several Fijian co-operative societies.

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† Provisional.

Hides.—The export of hides is a valuable adjunct to the beef industry and between 6,000 and 12,000 are exported annually.

The following table shows exports since 1938 :—

EXPORTS OF HIDES, 1938–1951

Year	*Quantity*	*Value*
	No.	£
1938	4,848	3,875
1939	5,757	4,084
1940	6,289	3,351
1941	9,004	5,565
1942	9,077	10,465
1943	6,404	7,005
1944	3,773	4,579
1945	8,942	10,153
1946	8,258	9,910
1947	12,411	12,645
1948	9,759	12,601
1949	6,603	11,613
1950	8,769	14,605
1951*	8,581	15,894

Goat skins are also exported (675 in 1950).

Other exports include miscellaneous fruits and vegetables, arrowroot, rubber and groundnut meal, but these are of little importance in the economy of the Colony at the present time and no expansion is contemplated.

Forestry

Forest policy in Fiji may be summarised as follows :—

(*a*) To protect and develop natural vegetation where its retention is necessary for climatic reasons and for the conservation of resources of soil and water necessary for good agriculture and to ensure adequate and continuous supplies of forest produce ;
(*b*) to ensure the best use of all species of timber available, and to promote the use of the less known species ;
(*c*) to establish and promote an export trade in timber ;
(*d*) to provide and preserve amenities.

To implement this policy it is desirable to have a complete air survey, and it is hoped that this will be done in the near future. The results of the survey will be correlated with a geological and soil survey and with the forestry " Stock Maps " now being prepared.

Much of the land area of the Colony is only suitable for forest. Fires, shifting cultivation and excessive use have caused erosion and waste land which can only be saved or returned to productive uses through an active policy of afforestation. When trees are felled and burned, and the ground kept clear of tree growth for four or five years as under a system of shifting cultivation, the whole ecology of the soil flora and fauna in the living humus is changed, the soil colloids disappear, the crumb structure of the soil particles alters and the soil itself, lacking cohesion, becomes much more susceptible to erosion. Following erosion, this semi-barren land may become covered by reeds and grasses which do not require much good soil and whose deep storage roots remain undamaged by the annual fires which sweep the area. This is the condition of the " green desert " lands of Fiji. These " green desert " areas which cover more than two million acres or nearly half the total land area of the Colony, can only be brought back to full productivity by strict control of grazing and burning.

With this aim in view the Department of Forestry has proceeded to create Forest Reserves and the position at the end of 1950 was :—

Reserves finally constituted ..	Mangrove	48,712 acres
	Inland	34,018 „
Preliminary notification published in the *Gazette* ..	Inland	31,797 „
Under preliminary discussion	Inland	165,683 „
		280,210 „

Experimental stations and nurseries have been established at suitable positions and considerable progress has been made both in testing the prospects of imported species and in experimenting with already established varieties.

The forested areas of Fiji near the sea coast or larger streams have been worked for the few recognised valuable species of timber trees for the last 130 years, and there are now no easily accessible, unworked, productive areas of forest. There is, however, available in the Colony sufficient existing virgin forests on land which should never be cleared of tree growth to supply in perpetuity all the timber required not only for local use but for an export trade ; always provided that prices are at levels that will enable roads to be built to and through the more inaccessible areas and that funds are available for the removal of climbers and weed-tree species from areas of forest land.

Royalties are collected by the Department on behalf of the owners of the land in all cases except freehold property. Fees are payable to Government on all timber or firewood removed from any property. Royalties and fees are identical in amount and vary between 5s. per 100 superficial feet converted and 2s. 6d. per 100 superficial feet round for class I timber to 1s. 6d. and 9d. respectively per 100 superficial feet converted and round Class IV timber. The classes of timber refer to various specified types of tree and reflect the quality and price of the timber produced in each class.

Royalties and fees on poles vary between 5s. and 6s. per 100 linear feet according to the girth of the pole and the type of timber, and on firewood between 1s. and 1s. 6d. per 50 cubic feet stacked ; charges on charcoal are 6d. per sack of not more than 100 lb.

There are at present 17 sawmills of various capacities operating in the Colony, the total production of which amounted to over four million superficial feet of timber in 1951. In addition there is a small amount of pit-sawn timber produced.

Wood is an important fuel in the Colony, particularly the mangrove which is cut from the swamp lands which fringe the main islands wherever the coastline is sheltered by outer reefs. Production of firewood in 1950 was 2,153,629 cubic feet. Pit props and poles are a small, though very useful, additional forest produce and are used extensively by goldmining companies ; production in 1950 was 146,825 cubic feet valued at £14,682.

In addition to local production the Colony imports approximately five million super feet of timber annually, mostly from Canada. There are grounds for hope that, in the long run, the newly introduced forest policy may enable the Colony to be largely self-supporting and possibly produce a surplus for export.

Fisheries

In all the outlying islands the population gets ample fish supplies from the reefs and most of the Fijian communities on the coastal areas of the main islands are able to supply their own needs. But the supply is insufficient where there are concentrations of population such as in Suva and in the sugar growing and gold mining areas and the deficiency is met by imports which have been as follows in recent years :—

IMPORTS OF FISH, 1945–1951

Year	*Quantity* Tons	*Value* £
1945	108	10,854
1946	127	17,978
1947	704	113,791
1948	481	88,799
1949	862	157,147
1950	795	137,330
1951*	583	104,617

The chief fishing grounds are the coral reefs, with their extensive mud flats on coral foundations, the estuaries and the mangrove swamps and the deep lagoons between the coral reefs. Spearing and small driving nets are the most common methods of fishing the reefs and estuaries. Hand nets, each about three feet long and two feet deep, are also used by groups of women who work together, wading at half-tide on the reefs. Another method of fishing is by stop-nets. These are intercepting nets, each about 50 yards long and 10 to 15 feet deep, which are laced together to form one net perhaps 300 yards long, which is shot at high tide around a coral reef, or across the entrances of a creek. As the tide falls, the fish on the reef or in the creek are trapped as they try to return to the open sea.

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* Provisional

In the estuaries, and also on sheltered stretches of coast, especially off swamps, are the fish-fences, which consist of a long arm, or leader, made of reed and supported by mangrove stakes driven deep into the soil and which divert the fish into a cage furnished with a non-return valve and pockets. Simple wicker-work fish traps of various types are also common.

The river estuaries and reefs produce large quantities of trochus, clam, big sea-snails and other shell fish, and large quantities are on sale in Suva. The divers on the reefs also catch octopus and crawfish. Prawns are caught in the estuaries by hand net and mangrove crabs by crude snares. Trochus shell and bêche de mer are exported ; exports in recent years are shown in the following table :—

EXPORTS OF TROCHUS SHELL AND BÊCHE DE MER, 1946-1950

Year	*Trochus Shell*		*Bêche de Mer*	
	tons	£	*tons*	£
1946 ..	252	25,684	59	6,315
1947 ..	105	6,525	50	9,168
1948 ..	124	7,177	15	3,423
1949 ..	217	9,007	7	1,447
1950 ..	354	23,626	1	227
1951 ..	337	44,745	—	—

Pearl shell, shark fins and turtle are also exported in small quantities.

The possibilities of development are limited as there is nowhere any large area of gently sloping sea-bottom and the lagoons between the reefs have an extremely irregular bottom. Beyond the outer reefs, the sea bed slopes steeply down to the ocean depths. No form of bottom drag-net or set net can therefore be used anywhere in the islands. It is even doubtful if the bottom long-line could be used as a regular technique. There is considerable risk in using pelagic nets, such as drift nets and purse seines, where coral heads rise to within 20 fathoms of the surface. Between the reefs, therefore, it is probable that hand-fishing methods, such as the bottom hand-line, trolling, and possibly pole-fishing for tuna, offer the only practical possibilities for exploiting the fisheries. Some prawn trawling may be possible in certain parts of the river estuaries.

There appears to be reason for optimism with regard to the introduction of pond culture for fish. On Vanuambalavu, in the Lau Archipelago, there is a productive Chanos fishery where, in a brackish water lagoon, large quantities of these fish are obtained and on Viti Levu there are native fish ponds which, if developed, would augment considerably the fish protein supplement of the Colony's food supplies.

A new, modern, municipal market, including a fish market, was completed in 1950.

The provision of better markets and storage should encourage the Fijians to fish in excess of their subsistence requirements and to market the surplus.

Minerals

Gold

At present the mining industry in Fiji is centred on the activities of three companies working the gold deposits at Vatukoula on the north side of the main island of Viti Levu, approximately 130 miles by road from Suva. Development and capital has been provided mostly from Australian sources, and the three companies are closely associated through their directorates ; they co-operate in management, ore treatment, labour supply and other matters. The mines are situated in a sparsely populated district, but the companies have provided extensive housing and social amenities, with the result that a satisfactory labour supply is available. Ore is mined by both open-cut and underground methods, the latter including horizontal cut and fill, square set cut and fill, and stull stoping.

The positive ore reserves of these chief mines, in mid-1951 were :—

	Reserves (tons)	Avge. Grade*
Emperor Mine ..	930,000	7·9
Loloma Mine ..	42,000	20·0
Dolphin Mine ..	20,000	25·0

* dwt. of gold per ton.

Figures of ore treated and gold and silver produced annually since 1938 are as follows :—

ANNUAL PRODUCTION OF GOLD AND SILVER SINCE 1938

Year	*Tonnage Milled*	*Fine oz. Produced*		*Value*	
		Gold	*Silver*	*Gold*	*Silver*
				£	£
1938	230,655	92,362	12,380	728,128	1,206
1939	243,258	107,789	16,115	941,638	1,631
1940	237,464	111,331	23,028	1,062,830	2,559
1941	231,922	118,681	30,383	1,130,272	3,541
1942	179,461	90,973	28,911	857,114	3,390
1943	172,063	61,505	19,048	587,089	2,219
1944	158,730	40,407	9,355	386,172	1,097
1945	161,413	94,964	29,398	907,631	4,624
1946	181,416	82.402	26,351	790,975	5,383
1947	159,646	94,353	33,237	905,775	6,637
1948	150,550	93,059	29,187	893,439	5,819
1949	166,086	104,036	29,755	1,125,156	5,924
1950	173,212	103,394	37,736	1,424,335	11,270

Manganese

Manganese is mined in the western part of Viti Levu, and small shipments of ore are made to the U.K. The extent of the manganese ore bodies is not known, but it seems likely that the industry will remain a small one. Markets for this product exist in the U.S.A., Australia, and the United Kingdom.

Other Minerals

Government takes no part in the operation of mines, its activities being limited to inspection of workings and technical assistance to prospectors through the Inspector of Mines. It does, however, operate several quarries for the production of road metal and building materials, besides which there are quarries operated by private interests for the same purposes and also to supply lime for the sugar and mining companies.

Capital investment in the mining and quarrying industries amounts to over one and a half million pounds, the bulk of which has gone into the development of the Vatukoula mines.

All mineral rights are vested in the Crown. No restriction is placed on prospecting and development, the normal procedure being, in the first instance, to obtain a prospector's right, which is a non-exclusive right to prospect for minerals anywhere in the Colony apart from small areas temporarily closed to prospecting. Upon the discovery of a mineral deposit the discoverer applies for a prospecting licence over the area within which the deposit lies, and the issue of this licence confers the exclusive right to continue prospecting and development work thereon. When it has been proved to the satisfaction of the Government that a payable deposit of mineral exists, the Governor may declare the area a mining area ; mining leases may then be issued for a period up to twenty-one years (renewable), thereby conferring the right to work and remove mineral. It is a condition both of prospecting licences and mining leases that the holder will work the mine to the extent of at least 200 man-days per annum for every 25 acres in the case of prospecting licences and 200 man-days per annum for every 10 acres of a lease. This condition may be modified in special cases.

Taxation and Royalties

Taxation on gold and silver during 1952 took three forms :—

(i) Company Income Tax at the rate of 6s. 3d. in the £ on the chargeable income as defined in the Income Tax Ordinance. As from 1952 mining companies were able to set off expenditure on development against profits over a period of six years, including the year in which the expenditure was incurred.

(ii) Royalty in accordance with the ratio of gross profits to revenue. If the rate of gross profit exceeds 20 per cent of the total sales then the royalty is 7½ per cent of the gross profit, and this rate increases by ⅛ per cent for each 1 per cent rise in the rate of gross profit above 20 per cent (e.g., if the gross profit is 24 per cent then the total royalty rate would be 7½ per cent +½ per cent, i.e., 20½ per cent of the actual amount of gross profit). If the gross profit does not exceed 20 per cent of sales the rate is three fortieths of one per cent of the sale value for each one per cent of gross profit. These scales were introduced in 1952, and are a downward revision of a sliding scale introduced in 1949 to replace the earlier flat rate royalty, and are designed to encourage the mining of lower grade ores.

(iii) Port and Customs Service Tax of one per cent of the value of all gold bullion exported.

Royalties and Port and Customs Service Tax on other than precious metals may from time to time be prescribed by Regulations, but no such Regulations have been made because no other metals have been commercially developed.

Customs tariff concessions to the mining industry allow British machinery and explosives into the country duty free, and foreign imports at reduced rates.

Manufactures

The main industries are concerned with processing local primary products.

Sugar

There are five mills in the cane growing districts, each of which carries out crushing and milling to the point where raw sugar is produced. This is shipped, mostly to New Zealand and Canada, for refining. Molasses, the chief by-product, is exported to Australia and used locally for pig food. Megass is used for fuel to supplement coal supplies.

The full capacity of the combined mills is 45,000 tons of cane per week or 1,215,000 tons for the season ; this is the equivalent of approximately 171,500 tons of raw sugar. Production of cane does not enable the mills to operate at full capacity, and in the 1949 season 976,765 tons of cane was crushed.

The value of mill plant and buildings was estimated at £2,323,000 in 1949, other buildings and workshops at £731,000. Railways, rolling stock and other equipment for transporting cane to the mills was valued at £2,167,000. The mills and transport employed 2,665 persons during the crushing season of 1950 ; of these 1,961 were Indians, 438 Fijians, 261 Europeans and five Chinese.

Coconut Products

There are two factories for treating copra, one of which specialises in soap production and the other in margarine production, both produce coconut oil and meal.

These factories consumed a combined total of 20,000 tons of local copra, from which would be produced approximately 12,000 tons of oil and 6,000 tons of meal. The laundry soap produced supplies a large part of the Colony's requirements, and exports are made to nearby Pacific Islands.

Margarine reached the marketing stage in 1949 ; its main ingredient is coconut oil, and it is expected that some 500 tons per annum of oil will be used for this purpose at the present rate of production. The output could be trebled, if necessary, by working three shifts.

This industry employs capital equipment estimated at approximately £250,000.

Butter

Two factories are in operation ; one a large co-operative concern and the other a limited company. The combined output was normally sufficient for the Colony's requirements, but in recent years it has been falling short of demand, partly because of an increased and more prosperous population, and partly because pastures have deteriorated owing to adverse seasons and shortage of labour. Normal production is approximately 550,000 lb. of butter per annum.

Pineapple Canning

Two canneries are operating in the Colony. One at Lautoka and the other on the island of Ovalau. Both operate largely with the produce of their own plantations. Their products are consumed locally, but a considerable quantity is exported.

Sawmilling

There are 17 sawmills in operation in the Colony, employing a total number of some 400 men. Production in 1951 amounted to 4¾ million superficial feet of sawn timber.

Miscellaneous

There are a number of comparatively small but useful manufactures mostly designed to suit local requirements. A biscuit factory meets the large local demand for plain biscuits, and also exports to Samoa and Tonga. Most of the vessels used locally, of the large wooden cutter and ketch type, are built in the Colony. There are also small factories for furniture and similar articles. Engineering plants are mostly confined to repair work, but some are capable of undertaking a wide range of work to specifications. Two plants have been constructed recently to produce candlenut oil and to manufacture paint from this oil for local use. Shirts, trousers and other clothing are manufactured in large quantities by small firms of Indian tailors. The equipment is usually a simple sewing machine, but a few tailors, including one large European firm, have special equipment for this purpose.

Village Industries

The Fijian people show a natural and traditional aptitude for a number of handicrafts with some degree of specialisation according to local conditions of climate and vegetation, although specialisation has never been carried to the point of economic importance and handicrafts have always been a sideline. A summary of the main products is as follows :—

Canoes, Wooden Bowls and Drums

These are made almost entirely by the men of Central Lau, especially the islands of Kambara, Namuka and Ongea, where vesi trees flourish. All the work is done by hand after fire has softened the heart timber. Practically all exchange is on a barter basis, often involving a traditional exchange of gifts.

Sinnet or Mangimangi

Sinnet or mangimangi is made from coconut fibre and is commonly used for binding rafters and posts in houses, and for canoes. This industry is common in all copra areas, but especially in Lau, where huge balls, hundreds of fathoms in length, are frequently prepared by men. There is very little commercial trade.

Mats and Fans

These are made by women from voivoi (grass) and are fairly generally produced in the wet zone. Lau, Lomaiviti and Tailevu are particularly noted for these products.

Tapa Cloth

Different styles made of beaten mulberry bark (*Broussonetia papyriferia*) are found in the different areas. Women in Lau, Thakaundrove, Kandavu and Vatulele Islands make large quantities. Practically all exchanges are on barter terms.

Pottery

This is confined now to Nandronga and Rewa, where cooking vessels and basins are fashioned by the older women.

Salt

The coastal areas of western Viti Levu are noted for salt pans. The women prepare bars of salt by evaporation from sea water. There is no commercial exchange and production in excess of the village requirements is bartered with nearby villages.

It is noticeable that the main interest in village industries is now confined to the outer islands where there is little scope for wage employment or production of cash crops.

Other Economic Activities

Tourism

Before the war the tourist trade had developed to considerable proportions. Large passenger liners on the trans-Pacific route called at weekly intervals and Orient and P. & O. liners on the England-Australia run were diverted at intervals to run a two weeks' cruise from Sydney. These ships carried about 1,000 passengers and spent two to three days in Suva. Special tourist attractions were arranged to coincide with these visits such as native dancing, fire walking, bazaars and organised tours. The war caused a decline in the tourist industry, but there has been a recovery in the post-war period and it was estimated that earnings from tourists in 1949 were of the order of £50,000.

The organisation of the tourist trade is in the hands of the Fiji Publicity Board, which is a body representing various local authorities and Chambers of Commerce. It is financed partly by a proportion of the proceeds of trading licences in the Suva area but most of its funds are provided by Government grants. The Board conducts a Tourist Bureau with a full-time secretary in Suva and a representative at Nandi Airport.

The normal tourist season is from May to November, but visitors from Canada and America travelling to escape their winter are beginning to arrive in greater numbers during what Fiji has previously regarded as its off-season, and, toward the end of 1949 and early in 1950, the increase in their numbers was very marked. The future development of this class of traffic will tend to level the trade over the year and encourage hotel development.

By means of the regional air lines passing through Fiji it is possible to travel by air to Tahiti, Samoa, Tonga, New Caledonia, the Cook Islands and Norfolk Island. Fiji has become the gateway to these interesting island groups, opening up a new and attractive field of tourist travel in the South Seas.

Distributive Trade

Suva is the main centre for the distribution of goods and of commercial activity in the Colony. Approximately 80 per cent of the Colony's total imports pass through the port and practically the whole of the remainder through Lautoka. From Suva and Lautoka goods are distributed mainly by road to various centres around the main island ; Suva handles the bulk of goods for transhipment to other islands in the group.

There are practically no pure wholesaling establishments. The main firms operate as wholesalers and retailers and have numerous branches throughout the Colony. In addition to the import and sale of goods, they conduct extensive inter-island shipping services ; their vessels trade from Suva and Levuka with outward-bound cargoes of general merchandise and pick up copra for delivery to export warehouses at both centres and the oil crushing mills in Suva. Apart from the fleets operated by these companies, there are also a number of medium-sized and small vessels operating as individual units or small fleets.

There is an increasing number of important Indian and Chinese merchants who are direct importers and handle a considerable volume of both wholesale and retail trade. Many of these firms are assisted in their efforts to import directly by the presence of indent and commission agents for overseas firms who arrange their transactions for them.

All the towns and townships of any size are fairly well served with stores carrying reasonable stocks of goods, and in the outlying districts there are numerous small retailers, usually Indian or Chinese, who stock the essential requirements of Fijian and Indian consumers. In the copra districts these traders are also collecting points for copra.

The methods of distribution of local produce vary widely. Butter and meat usually pass through established retail stores and to a certain extent retailers also handle vegetables, rice and other local foodstuffs. Most centres of population, however, have open-air markets where growers or middlemen occupy stalls and these markets handle the bulk of locally grown foodstuffs. In addition many essential products, particularly rice and ghee, are sold directly by the farmer to individuals who are known personally to him. This is particularly so where goods are in short supply.

Professions

The following numbers were employed in the main professions at the end of 1949 :—

Doctors	36 of which 23 in Government Service.
Dentists	7 of which 1 in Government Service.
Nurses	191
Pharmaceutical Chemists ..	20
Opticians	2
Teachers	1,120
Lawyers	30
Surveyors	20
Architects	6
Civil Engineers ..	9
Mechanical Engineers ..	3

Co-operative Movement

Organized co-operation had not played an important part in the Colony's economic life until late 1947 when a Registrar of Co-operatives was appointed under the Co-operative Societies Ordinance (No. 11 of 1947) which had been passed earlier in the year. Since the early 'thirties enquiries had been made into various aspects of co-operation, including agricultural credit, with very little positive result. Towards the end of 1939 Agricultural Department officers undertook to advise and encourage native " clubs " in co-operative production and marketing with a view to the formation of permanently constituted bodies. The war interrupted progress but as soon as possible the matter was again taken up and a very active policy of development has been followed since the appointment of a Registrar.

The movement is still in its early stages ; individual societies are small both financially and numerically, and there is much work to be done in teaching and assisting the societies.

CO-OPERATIVE SOCIETIES—1950

	Number	*Authorised Capital*	*Subscribed Capital*	*Number of Members*
		£	£	
Fijian ..	25	57,300	...	1,369
Indian ..	2	7,000	...	173
Others ..	1	—	—	10
Totals ..	28	64,300	21,564	1,552

There were also 48 unregistered societies. The estimated value of produce handled by the registered societies was £24,303 of which £11,944 represented sales of copra.

It will be seen that the movement is strongest amongst the Fijians. This is understandable because the idea of co-operation fits easily into the traditional village communal life. On the other hand, the traditional way of life militates against sustained effort in excess of requirements for immediate needs, i.e., planned production; financial stability will be difficult to achieve because the Fijian has a fine disregard of money values.

The Fijian societies are almost entirely confined to the organized marketing of members' produce and to raising and selling crops by mutual efforts on communally owned village land. Capital requirements are, therefore, small. Generally the societies do not endeavour to make a profit for periodic distribution. Each supplier is paid the proceeds of his produce less expenses and all share in the proceeds of combined efforts although, in this case, the funds may be used to purchase boats and vehicles or to improve village amenities.

In addition to the societies already registered there are numerous " clubs " which are, as it were, going through their initiation period. If these appear to be permanently established on a satisfactory basis they will be eligible for registration and for the benefits and responsibilities of the Ordinance.

The Indian community among which there is no marked village communal life has not, so far, shown the same enthusiasm for co-operation as the Fijian. Of the two Societies already formed, one is to be a consumer society and the other is primarily for the purchase and utilisation of farm equipment and machinery.

The most important co-operative concern is one which has not been registered under the Co-operative Societies' Ordinance. This is the Rewa Co-operative Dairy Co., Ltd., which was formed in 1923 to process the cream supplied by a group of European dairy farmers who settled in the Tailevu district (eastern Viti Levu) under soldier settlement schemes after the first World War. The Company is registered under the Companies Ordinance. It is financed by shareholders who may be either suppliers or merely interested financially. Butter fat is purchased from shareholders and non-shareholders at fixed rates. Deferred payments or bonuses are distributed amongst shareholders from profits in proportion to the quantities supplied. Non-shareholder suppliers also receive deferred payments but at a reduced rate. Capital has been subscribed in the form of shares issued to dairy farmers and others but no interest or dividends are paid. The company has developed into the most important butter producer in the Colony. Its paid up capital is £9,753 and its annual production of butter in recent years averages about 400,000 lb.

Employment and Labour Supply

Local Employment

There is no regular pool of unemployed in the Colony. This is due partly to general world conditions but also to the fact that no important section of the population is divorced from the land. In view of the rapidly rising population, particularly of the Indian community, and limitations on the supply of suitable land, it is probable that a landless class will eventually develop and local industrial development may be needed to provide opportunities of employment for this class.

At present there is a slight shortage of unskilled labour due not so much to the shortage of manpower as to the fact that the Fijians are largely self-sufficient in their village community life and many of these people work in wage occupations when some special need arises which can only be satisfied through cash incomes. This Fijian labour can, as a rule, be drawn upon in an emergency. It is unskilled and inefficient by European standards but, under certain conditions, can be reasonably effective : for example, stevedoring is almost entirely carried out by Fijian labour brought into the ports from surrounding villages and it is considered to be outstandingly good.

Skilled labour is scarce, particularly in the building trades, and increasingly difficult to obtain as the required degree of skill increases. This is due, in part at least, to the fact that no organised system of apprenticeship exists in the Colony. The introduction of such a system is at present under examination.

Labour turn-over is fairly high in most industries. Wage rates vary widely with the degree of skill and, in the absence of an apprenticeship system, it is difficult to fix margins for recognised standards of skill.

According to the records of the Labour Department, 17,497 persons were classified as wage workers in 1950, but this excludes a great many workers who are members of the employer's family, office workers, supervisory staff, civil servants (as distinct from Government wage employees) and domestic servants in private households. Stevedoring labour also is generally excluded except for the comparatively small number in permanent employment. Of the total number of registered workers approximately 10,000 were classified in wage groups from 4s. 1d. to 8s. per day. (In the case of 9,000 workers whose employers provide housing and/or rations the imputed value of these benefits has been included in the assessment of the daily wage rates.) A rough classification according to the degree of skill is :—

(*a*) Unskilled ..	up to 6s. per day	3,424
(*b*) Semi-skilled ..	6s. 1d. to 16s. per day	12,713
(*c*) Skilled ..	over 16s. per day	1,360
	Total ..	17,497

The hours of work vary between different industries, but an average per week would be 44 hours. There are two paid public holidays each year for industrial workers and regulations were introduced during 1948 under the Labour Ordinance granting six days' annual holiday for all wage employees in commercial and industrial undertakings.

The demand for labour is fairly heavily concentrated in the Suva area, but the five sugar mills and the goldmining area at Vatukoula create considerable demand at other centres. The supply in Suva is met by a large permanent Indian population and some permanent and transient Fijians. The sugar mills rely very largely upon Indian employees who live in and around the mill areas and in many cases these people are attached to farms in the district.

The goldmining industry employs a high proportion of Fijian labour and, although it is situated in a lightly populated district, the problem of labour force has been overcome by satisfactory housing arrangements and considerable attention to social amenities for employees.

Migrant Labour

With the cessation of the system of Indian indentured labour the Colony's labour supply has generally been sufficient for the demand, and immigration has been negligible. There is no emigration of labour because such a movement would involve lengthy and extensive sea voyages except in the cases of Australia and New Zealand whose immigration laws prevent this type of labour movement.

Internal migration presents no serious problem, although it is held in some quarters that the drift of Fijians to the towns, mainly Suva, is damaging to the traditional village life.

Fuel and Power

The Colony has no natural supply of fuel except firewood and megass, a by-product of cane-crushing. Firewood is fairly plentiful at present and is cut from the mangrove swamps, which are common throughout the main islands, and from forest areas, particularly those adjacent to centres of population. The cutting of firewood is supervised by the Forestry Department and royalties and fees are charged.

The mills of the Colonial Sugar Refining Co., Ltd., operate with coal fuel and megass. The coal is normally imported from Australia and it is transported mainly in the company's own vessels. About 20,000 tons per annum are normally required for the sugar industry and some 1,000 tons per annum are imported for other users.

Electricity

Electricity is the main source of industrial power. This is produced from diesel-driven equipment situated in the main centres.

In Suva the electric supply and transmission system is owned by the Suva Town Council. It is a combination of D.C. in the older established central town area and A.C. in the suburbs. The installed capacity is 775 kW. D.C. and 890 kW. A.C., but there is a large unsatisfied demand and new consumers are unable to obtain connections particularly in the D.C. area. New A.C. equipment with a capacity of 1,560 kW. is on order and it was hoped that this would be in operation during 1952. It is not proposed to extend the D.C. capacity because the future demand for both industrial and domestic use is expected to come mainly from areas outside the central section. When the opportunity occurs the D.C. area will be changed over to A.C. but this will not be possible for some time. The present charges are :—

Light	5¾d. per unit.
Power	2½d. per unit.

In Lautoka a new diesel-driven plant has been installed by Government. This is to replace an old privately owned plant which had a capacity of 120 kW. The old undertaking was requisitioned by the Government during the war. The new installation has a total capacity of 250 kW. A.C. The charges are :—

Private use :		
Light		.. 8d. per unit.
Power ..	First 30 units	.. 4d. per unit.
	Remainder	.. 3d. per unit.
Commercial and Industrial use :		
		3d. per unit.
	Special off peak rate	.. 2½d. per unit.

The largest power producing plant in the Colony is that operated by Tavua Power Pty. Ltd., a company owned jointly by the gold mining companies. This plant is diesel driven and has an output of 3,000 kW. Its primary purpose is to supply power for mining and treatment operations, but there is ample surplus output for the domestic requirements of the residents of the gold fields at Vatukoula and the nearby township of Tavua.

There are a few small plants at provincial schools and on Government stations. In all other centres electric supply is provided by private enterprise at various rates approved by Government. For the most part these plants are now incapable of meeting requirements and do not provide a 24 hours service.

Proposals were under consideration in 1951 for the construction of a dam and power station on the Navua river 35 miles from Suva and detailed engineering and geological investigations were being undertaken. The total cost of the project was estimated at approximately £2¼ million. The proposed undertaking was to be operated by a public utility company and would serve the whole of the south-east area of Viti Levu, including the Suva district. However, it was found in 1952 that the cost would be in the region of £4 million and the scheme was abandoned.

III. FINANCE AND TRADE

Public Finance

Central Government

A broad outline of the financial history of the Colony over the past 20 years is given in the following table :—

REVENUE AND EXPENDITURE OF FIJI, 1929-1952

Year	*Total Revenue*	*Total Expenditure*
	£	£
1929	677,945	642,124
1930	638,764	645,293
1931	565,393	605,973
1932	547,461	528,604
1933	605,201	569,984
1934	782,914	612,962
1935	733,432	641,181
1936	796,630	677,152
1937	947,497	878,104
1938	889,514	966,957
1939	930,866	1,095,928
1940	938,282	947,721
1941	1,124,210	1,069,046
1942	1,272,842	1,152,545
1943	1,819,591	1,510,338
1944	1,738,791	1,614,224
1945	1,692,518	1,796,667
1946	2,157,356	1,981,629
1947	2,728,270	2,329,232
1948	2,888,006	2,475,133
1949	3,100,752	2,648,516
1950	3,797,906	3,589,459
1951*	3,533,225	3,695,162
1952†	3,820,067	3,818,349

* Revised Estimate † Approved Estimate

Revenue for 1950, 1951 and 1952 includes £741,069 and £217,210 and £216,500 withdrawn from General Reserve.

It will be noted that there has been a steady increase in both revenue and expenditure, particularly since 1939. The increase in revenue has been due to higher rates of taxation and to increased receipts from customs duties arising from the greatly enhanced value of trade. The rise in expenditure is due to a combination of rising costs and increased Government services, particularly in the field of education and health.

In the following table expenditure and revenue for 1938 are compared with those for 1949 and 1951 (estimated).

ANALYSIS OF REVENUE, 1938, 1949 AND 1951

	1938	1949	1951*
	£	£	£
Customs dues	489,318	1,416,436	1,630,025
Port, Harbour, Wharf and Light dues	29,687	35,069	36,200
Native Taxes	10,171	—	—
Licences, Excise and other Internal Revenue.. ..	144,737	1,091,321	978,740
Fees of Court or Office Payments for Specific Services and Reimbursements in Aid	73,599	199,833	220,870
Post Office	37,730	105,021	101,810
Rent	13,792	39,095	52,040
Interest	39,369	94,257	93,750
Miscellaneous	48,185	103,517	197,970
Land Sales	1,085	—	10
Colonial Development Fund	67	—	—
Withdrawal from General Reserve	—	—	217.210
Extraordinary Receipts ..	1,774	16,203	3,600
	889,514	3,100,752	3,533,225

* Revised Estimate.

ANALYSIS OF EXPENDITURE, 1938, 1949 AND 1951

Head	1938	1949	1951
	£	£	£
Administration	194,915	469,677	750,456
Public Security	46,539	235,938	294,509
Public Works	162,157	387,088	612,965
Agricultural and Forestry ..	22,564	91,114	120,731
Education	58,113	293,020	403,596
Medical Facilities	93,826	396,480	481,416
Rehabilitation	—	50,166	36,083
Subsidies†	—	20,430	50,000
Civil Aviation	—	20,896	24,710
Public Debt	119,360	137,858	141,300
Pensions	44,341	132,268	147,600
C.D.W. Schemes	—	27,393	—
Expenditure from Surplus Balances	157,248	204,931	409,548
Contribution to Development Fund	—	—	50,000
Miscellaneous	67,894	181,257	172,248
Total Expenditure ..	966,957	2,648,516	3,695,162

† Temporary items intended to even out fluctuations in the cost of flour which, without subsidy, would have caused hardship to lower paid workers.

The main changes in taxation since 1937 are noted in the following paragraphs :—

Income Tax and Surtax

Income Tax.—From its inception in 1921 to the outbreak of war, income tax had been at the rate of 1s. in the £ on taxable incomes with a statutory exemption of £250 for single and £500 for married persons with an additional £50 for each dependent child. Early in 1940 this rate was increased to 1s. 3d. in the £ and the statutory exemption was reduced first to £175 single and £425 married and later to £150 single and £400 married. In 1945 an element of progression was introduced ; the basic rate remained unchanged but for each additional £ of taxable income the rate was increased by ·012d. to a maximum rate of 6s. 3d. in the £ when taxable income reached £5,000 per annum.

Surtax was also increased during the war period. At the 1940 revision the following changes were made :—

On taxable incomes of	*Rates per Pound*	
	Prior to 1940	1940
£5,001 to £10,000	2/0	2/6
£10,001 to £15,000	3/0	3/9
£15,001 to £20,000	4/0	5/0
£20,001 to £25,000	5/0	6/3
£25,001 and over	6/0	7/6

These rates remained unchanged until the 1945 revision when the surtax field was reduced to take in a lower income range and the rates in the existing scale were increased. The changes compared with 1940 conditions were as follows :—

On taxable incomes of	*Rates per Pound*	
	1940	1945
£1,001 to £3,000	—	1/3
£3,001 to £5,000	—	2/6
£5,001 to £10,000	2/6	3/9
£10,001 to £15,000	3/9	5/0
£15,001 to £20,000	5/0	6/3
£20,001 to £25,000	6/3	7/6
£25,001 to £30,000	7/6	8/9
£30,001 and over	7/6	10/0

Company Income Tax was first levied in 1921 at the rate of 1s. in the £ and remained unchanged until 1940 when it was increased to 1s. 6d. In 1941 and 1942 it rose again first to 3s. and then to 5s. in the £. The present rate was established in 1945 at 6s. 3d. in the £.

The effect of these changes since 1940 is shown in the following table :—

REVENUE FROM INCOME TAX 1941-50

Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Amount £	113,458	233,191	473,258	463,327	346,039	447,080	641,467	800,057	886,692	835,687

Residential Tax.—This tax is collected on a per capita basis and was, since its inception in 1924, at the rate of £1 per head for every non-Fijian male between the ages of 18 and 60 years. It was increased in 1941 to £1 10s. and in 1946 to £2, at which level it has remained. The tax paid is deducted from the assessment of persons paying income tax.

Receipts from Residential Tax during the period 1941-50 are shown in the following table :—

REVENUE FROM RESIDENTIAL TAX 1941-50

Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Amount £	21,306	21,138	22,269	21,998	22,281	44,802	45,566	46,119	48,706	49,122

Customs Duties.—Revenue accruing from Customs Duties since 1941 is shown in the following table :—

Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Amount £.. ..	574,266	594,387	830,082	704,332	739,077	974,925	1,448,904	1,409,186	1,416,436	1,298,262

The increase in yields from customs duties is due to the increased value of trade rather than to increased rates of duties. During a period of rapidly rising prices specific duties have been largely retained with the result that, whereas in 1940, total customs duties amounted to approximately 28 per cent of the c.i.f. value of retained imports the proportion had fallen by 1950 to just over 20 per cent.

Rising costs have been the chief reason for increased expenditure, although it will be noted from the preceding summary table that social services are becoming increasingly important and expenditure on these items is increasing accordingly ; there has also been a large increase in expenditure on public works. The growth of expenditure on medical facilities, education and public works since 1940 is shown in the following table :—

EXPENDITURE ON SOCIAL SERVICES AND PUBLIC WORKS 1941-50

Year		1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Medical ..	£	107,807	117,705	150,846	179,502	206,311	237,523	276,830	339,635	396,480	438,414
Education ..	£	70,441	68,522	68,333	88,638	99,696	117,412	161,334	245,471	293,020	318,523
Public Work ..	£	165,516	145,337	161,602	230,460	277,983	325,139	315,149	367,906	387,088	495,036

The public debt of the Colony amounted to £1,760,801, on 31st December, 1951, against which £440,984 had been provided in sinking funds. Of this debt the War Loan of 1943 (£505,260) should be excluded because the United Kingdom has accepted responsibility for both interest and repayment of principal ; no sinking fund has, therefore, been provided for this debt. It would be more realistic in these circumstances to show the outstanding public debt at £1,255,541, on which net interest payments amount to £44,519, an average rate of slightly over 3½ per cent per annum. Payments to this sinking fund amount on the average to £30,156 per annum.

Apart from interest and sinking funds the Colony is committed to various other fixed annual charges. Closely allied to interest and sinking fund provision is the charge of £50,000 per annum for the ten years 1949-58 inclusive which, by agreement with the New Zealand Government, is in full settlement of the Colony's war debt to New Zealand amounting to £768,000.

At the same time as the New Zealand debt settlement was arranged, an agreement was reached whereby all expenditure on air defence should be met by New Zealand but that Fiji should undertake to maintain the Fiji Military Forces and the Fiji Royal Naval Volunteer Reserve at strengths to be determined by the New Zealand Joint Chiefs of Staff and to set aside for this purpose a sum of £100,000 per annum. If the actual expenditure in any one year by Fiji on its military and naval forces is less than £100,000, Fiji will pay the balance into a special Defence Reserve Fund which will be available for future defence needs of those forces. If the actual expenditure in any one year exceeds £100,000 the excess will be met by a withdrawal from the Defence Reserve Fund and, if the Fund is incapable of meeting this additional expenditure, it will be met by New Zealand. The contribution of this Colony in respect of defence will continue for a period of 10 years or for such less a period as the New Zealand Chiefs of Staff may determine that defence considerations warrant. In effect this agreement amounts to an annual commitment of £100,000 for 10 years from 1949 to 1958 inclusive so far as the Colony is concerned.

In addition to ordinary expenditure the Government plans to spend some £4½ million on the Development Plan during the 10-year period 1949-58. Details of this proposed expenditure are shown in Part IV.

Local Government Finance

Suva is the only centre with a fully elected Council. In all other centres the respective Boards are nominated by the Governor from representative citizens, including Government officers.

The main activity of all local authorities is the supervision of sanitation arrangements, maintenance of roads, parks and gardens, street lighting where available, and minor public works. In certain townships an education rate is levied, otherwise, water supply, police, education and hospitals—functions which are frequently undertaken by local administrations—are the responsibility of the Central Government in Fiji, mainly because the townships are not sufficiently large or prosperous to perform these services. The electricity supply of Suva is run by the Town Council.

The Central Government assists each authority with grants-in-aid. Some of these grants are earmarked for special purposes, such as maintenance of fire brigades, and others are to enable the authorities to carry on their services without resorting to excessive demands upon ratepayers.

The main revenues of all local authorities come from rates assessed annually on the unimproved value of land, and from such sources as licences, fees, charges for garbage and night soil collection. Revenue and expenditure is as follows :—

REVENUE AND EXPENDITURE OF LOCAL AUTHORITIES

Town or Township	*Year*	*Revenue*	*Government Grants*	*Total Revenue*	*Expenditure*	*Population* (1946 *Census*)
		£	£	£	£	
Suva	1948	89,771	930	90,701	84,265	11,398
Lautoka ..	1948	5,780	2,720	8,500	8,102	2,225
Levuka ..	1948	1,442	2,940	4,382	3,942	1,944
Lambasa ..	1949	828	342	1,170	1,389	1,106
Nausori ..	1948	2,072	200	2,272	1,333	1,121
Mba	1949	1,127	100	1,227	1,217	1,315
Nandi	1949	1,000	—	1,000	926	865

In general the local authorities have not engaged in heavy expenditure of a capital nature and, therefore, no large scale borrowing has taken place. The only exceptions are Suva and Lautoka.

At the end of 1948 the Suva authority had a total indebtedness of £91,172, of which £60,300 was in debentures issued to the public at rates ranging from 3½ per cent to 5 per cent, depending upon date of issue. The remainder, £30,872, was obtained from the Central Government at similar rates of interest. These loans were used for sewerage installations, the electricity undertaking, roads, bridges, etc. The raising of loans must first be approved by the Governor in Council. Suva is the only local authority to have raised loans by public subscriptions. Loan finances required by other authorities have been provided directly by the Central Government and, of these, the only one of importance has been the Lautoka Town Board which had outstanding indebtedness to Government amounting to £16,598 on 31st December, 1950.

Currency and Banking

Fiji issues its own currency, which is linked with sterling at the rate of £111 (Fijian) to £100 (sterling). Currency to the aggregate value of £3,564,437 was in active circulation in the Colony at 31st December, 1950. The face value of notes in active circulation has increased very greatly during the past 15 years. Increasing population and general prosperity combined with the rapid rise in prices have been the basic causes of the upward trend in circulation.

Movements in the volume of currency in active circulation since 1944 have been as follows :—

ESTIMATED CURRENCY IN ACTIVE CIRCULATION, 1944-1950

Year	*Amount*
	£'000
1944	1,950
1945	1,827
1946	1,698
1947	1,751
1948	1,818
1949	2,026
1950	3,564

The control and the issue of notes is in the hands of the Currency Commissioners appointed under the Fiji Currency Notes Ordinance 1933 Cap. (166). Notes are issued against payment of the sterling equivalent into the "Note Security Fund" and redeemable in the sterling equivalent value by withdrawals from this fund.

When New Zealand altered its exchange rate to parity with sterling in August, 1948, there was considerable speculation over the question of whether Fiji would follow suit and appreciate its currency. It was possible that speculators would purchase large amounts of Fiji currency at the rate of £F.111 to sterling £100 in the hope of large capital gains if the rate were moved to parity. In these circumstances the Ordinance was amended from an unconditional direction that the Currency Commissioners "shall" sell Fiji currency in exchange for sterling, to a discretionary power which permits refusal in cases where the purchase of Fiji currency appears to be in excess of normal requirements or for purposes which cannot be explained satisfactorily.

There are three commercial banks operating in the Colony. The Bank of New South Wales, a branch of one of the largest Australian banks, has offices in Suva and Lautoka, and agencies at Mba, Vatukoula and Nandi ; the Bank of New Zealand also has a branch in Suva.

In 1950 the rate of interest on overdraft ranged from 5½ per cent to 6½ per cent, depending upon security and the rates for fixed deposits were

3 months	½ per cent
6 months	¾ per cent
12 months	1¼ per cent

The Government operates a savings bank with a head office in Suva, and 26 branches operated in conjunction with Post Offices and district administrative offices. The Bank was established in 1908 under the provisions of an Ordinance, which has since been repealed and replaced by the Government Savings Bank Ordinance 1938 (Cap. 214). Steady progress has been made throughout its career, and at 31st December, 1950, there were 45,831 accounts with total deposits amounting to £1,404,144. Interest was paid at the rate of 2½ per cent per annum. The total amount of deposit of any individual was limited to £1,000, and no individual account may be increased by more than £500 in any one year. Both principal and interest are guaranteed by the Government.

Apart from bank finance there is a considerable volume of mortgage business transacted by legal firms and others at rates ranging upwards from five per cent on first class security. There is also reputed to be a large amount of moneylending and temporary finance based on crop liens and doubtful types of security. Much of this takes the form of credit allowed by local storekeepers. It was considered that the rates and conditions of this type of finance were frequently oppressive, and the Money Lenders Ordinance was passed in 1938 with the object of ensuring satisfactory conditions and limiting the rate of interest to a maximum of 12 per cent per annum. The position improved partly through the effect of this Ordinance and partly through general prosperity. However, it seems possible that the provisions of the Ordinance may be evaded in certain cases, especially with some of the illiterate agriculturists. In its Development Plan the Government is introducing rural credit facilities in order to release farmers from excessive credit costs and to enable them to finance better production methods.

Private Investment

The *sugar industry* is financed by an Australian company which operates all the mills in the Colony (five) and controls a considerable part of the cane lands, which it leases to farmers. It is estimated that the company has invested some £6,000,000 in the Colony.

Little is known of the capital investment in the *copra industry*—Fiji's second industry. The Fijians with little individual capital outlay produce some 60 per cent of the total product and individually owned plantations the remainder. Two copra crushing mills, both owned by Australian interests, operate in Suva. The oil produced is partly utilised in the domestic manufacture of soap and margarine and the chief by-product, coconut meal, exported. The margarine factory has a capacity of 1,500 tons per annum.

The *gold mining industry* which produces over 100,000 ozs. of gold per annum has an estimated capital investment of £1,500,000. Again the development of these fields was financed from Australian sources and most of the capital is held by overseas shareholders.

Tuna fishing was a new enterprise established during the post-war period ; the undertaking was financed by American capital. Some £190,000 was spent on research and initial expenses and £168,000 on special vessels and equipment. Fishing operations have been based on Fiji and fish caught was to be shipped to American Samoa for canning and subsequent export to the United States of America. The Company has, however, had to cease operations owing to insufficient supply of fish.

In the *distributive industry* there are two large firms, which operate as general merchants, exporters, importers and shipowners, and have branches at all main centres. One is a local company which through steady progress and amalgamation has reached a predominant position in the Colony and has extended its interests to Samoa and Tonga. Its capital was originally self-produced in Fiji but it is now a public company with a considerable number of its shareholders in Australia and New Zealand. Total assets are valued at slightly under £2,000,000. The other company is associated with a large group of Australian companies and most of its capital is owned by Australian and New Zealand shareholders. Total assets amount to approximately £1,800,000. In addition there are numerous Indian and Chinese merchants ranging in size from some of considerable importance to small general retailers.

Facilities such as banking, insurance, overseas shipping, petrol and oil distribution, cable and wireless, airlines, etc., are provided by branches or subsidiaries of large overseas companies.

Extremely profitable trading conditions have existed particularly in post-war years, and substantial accumulations of trading profits should provide ample funds for normal expansion of established concerns. There have been no bankruptcies of any significance in recent years.

Standard and Cost of Living

Two regular surveys of changes in the cost of living are made in Fiji, both based on the standard of the immediate pre-war period, i.e., 1939.

Index numbers are published quarterly by the Labour Department, relating to the cost of living of Indian workmen on Viti Levu, (*a*) in Suva, and (*b*) in country districts, i.e., outside Suva. Both cover workers who were earning less than 50s. weekly at the time of the first survey in October and November, 1943.

The late Mr. C. H. Carne, M.B.E., made a quarterly survey of changes in the cost of living of European families from 1944, based on the expenditure in that year of a group of 23 families having incomes in 1939 of £400-£600. The resulting unofficial index has been continued since June, 1950, by the Labour Department.

Changes in the index numbers are shown in the table below :—

COST OF LIVING INDICES (August, 1939 = 100)

Year		*Indian Workmen*		*European Families*
		Suva	*Country*	
1944	Jan. ..	173	215	...
	July ..	169	200	145
1945	Jan. ..	173	198	...
	July ..	164	186	141
1946	Jan. ..	164	183	141
	July ..	169	187	144
1947	Jan. ..	189	206	156
	July ..	186	207	163
1948	Jan. ..	204	229	170
	July ..	207	235	171
1949	Jan. ..	210	238	172
	July ..	207	234	175
1950	Jan. ..	212	237	182
	July ..	211	240	185
1951	Jan. ..	222	252	191
	July ..	233	266	204
1952	Jan. ..	259	293	—

The Suva cost of living index for Indian workmen is the basis for Government wage employees. In 1939 the weekly unskilled Government labour wage was 15s. 0d. (48 hour week) and early in 1950 30s. 8½d. (44 hour week). Wages are adjusted on a reducing scale which falls in a straight line from 100 per cent of the cost of living increase at a minimum wage to 50 per cent of the increase when the employee receives the pre-war maximum wage rate of 25s. 0d. per day. Adjustments have been made with every movement of 10 points or more in the index in order to avoid frequent minor movements.

As from 1st July, 1950, an important change of practice was introduced. The pre-war minimum wage was abandoned as the base for adjustments and a new base at the rate of 4s. 8d. per day was introduced. This base absorbed a considerable part of the cost of living increase and the change was made to reassure those workers who feared that on a falling index wages might ultimately return to the 1939 level. The wage rate based on the index number of 209 was fixed at 6s. 2d. per day which includes a cost of living allowance of 1s. 6d. per day in addition to the new basic wage. In future wage adjustments will be made with every deviation of five points or more in the index number. These changes have been made as a result of negotiations with the Public Works Employees' Union. These arrangements apply only to Government wage employees but it is the practice for commercial firms to move their wages in sympathy with Government wage movements.

The automatic adjustments in Government rates apply only to wage employees and not to salaried employees permanent or otherwise. Adjustments in these cases have been somewhat arbitrary. The first war bonus was paid as from July, 1942. It was confined to the lower and middle salary scales and ranged from 15 per cent on salaries of £100 per annum or less to five per cent on salaries of up to £420 per annum. Living costs continued to rise and in 1944 a committee made further investigations with the result that from 1st January, 1945, a new scale of war bonus was put into operation. The rates ranged from 65 per cent on salaries up to £75 per annum to a flat amount of £90 per annum on all salaries over £600 per annum. These adjustments were originally treated as special relief on account of cost of living increases but were later incorporated in official salaries.

From 1st January, 1948, a further cost of living adjustment was made and salaries were increased by 10 per cent of existing salaries to the maximum of £80 which applied to all salaries of £800 and over. This was an interim adjustment pending a decision upon a suitable formula for adjustments with the increases in the cost of living index numbers. Early in 1949 consideration was given to both the Indian and European family index and also to an index of import prices and it was decided that a rise in the cost of living for salaried employees of all races could reasonably be set at 100 per cent above pre-war ; it was also decided that a formula for salary adjustments should, when graphed, describe a curve which permits practically a full cost of living increase at the lowest salary and decreases fairly steeply with higher salaries. On this basis the salary of £66 per year received an increase amounting to 90 per cent of the assumed 100 per cent increase in cost of living and at a salary of £1,250 per annum the increase was reduced to 20 per cent of the cost of living rise.

Salaries based on these calculations did not appear sufficient to attract a sufficient number of employees and a Salaries Commissioner was appointed to review the situation.

As a result, a further salaries revision took place in 1951 with effect from the beginning of 1950. A cost of living allowance was again introduced, and as from the beginning of 1952 it was at the rate of 10 per cent on all salaries up to a maximum allowance of £F130.

Commercial undertakings tend to follow and often exceed the Government scales although there is not such close co-ordination amongst salaried employees as in the case of wage-earners.

Balance of Trade and Payments

In pre-war years the balance of visible trade in Fiji was normally favourable, but during the war the supply of labour for export production was reduced through enlistment in the forces and diversion to other forms of activity, notably the construction of camps and the supply of services for allied troops stationed in the Colony. As a result the favourable visible balance was reduced during the war years and in the period 1942-45 inclusive, adverse balances were recorded.

The following table shows the visible exports, imports and trade balances for the years from 1938 :—

BALANCE OF VISIBLE TRADE

Year	*Domestic Exports*	*Retained Imports*	*Export Surplus*
	£	£	£
1938*	2,458,797	1,599,205	859,592
1939*	2,659,858	1,538,705	1,121,153
1940	2,577,711	1,725,270	852,441
1941	2,287,565	1,905,611	381,954
1942	2,961,958	2,089,380	872,578
1943	2,312,454	2,613,089	−300,635
1944	1,935,564	2,513,450	−577,886
1945	2,092,559	2,539,725	−447,166
1946	3,441,268	3,408,146	33,122
1947	5,816,331	4,789,915	1,026,416
1948	7,372,295	5,527,617	1,844,678
1949	6,419,501	6,566,612	−147,111
1950	7,104,630	6,253,373	851,257

* Comparisons of imports with years before 1940 are not valid as in that year the basis of valuation was changed to c.i.f. from the earlier method of using f.o.b. values. Imports in the years 1937 to 1939 inclusive are, therefore, understated.

A very serious influence in the period 1943-45 was the refusal of cane farmers to harvest their cane in the 1943 season. This, at least partly, can be attributed to the effect of wartime conditions since it was due to the claim that the price of cane had not kept pace with the rapidly rising cost of living. The refusal to harvest upset the crop rotation so that the effects lasted over a period of at least three years as will be seen from the following figures :—

SUGAR EXPORTS

Year to 31st December	*Quantity Exported* *tons*
1942	131,294
1943	92,528
1944	67,252
1945	30,504
1946	106,274

No official estimates of the invisible items in the balance of payments have been published. A study has, however, been made of 1946 conditions and there are reasonable grounds for believing that the invisible items resulted in an adverse total of £500,000-£600,000 on invisible accounts in that year. It is estimated that this adverse balance had increased to more than £1 million by 1949.

The year 1946 probably resulted in an adverse balance of payments because by this time the greater part of the spending of allied forces had ceased, thereby reducing invisible exports. Import relaxations and accumulated wartime prosperity caused a sharp rise in imports, and although exports also rose both in quantity and value and the visible balance of trade was again favourable, the extent of the favourable balance (£33,122) was insufficient to offset the estimated deficit on invisible items.

In 1947 and 1948 the production and the value of exports rose rapidly so that the year 1948 produced record exports valued at £7,372,295. Imports continued to rise but at a lower rate, and there were visible trade surpluses of £1,026,416 in 1947 and £1,844,678 in 1948—the latter figure was also a record. It is likely that these surpluses would outweigh the deficit on invisible items in 1947 and 1948.

In 1949 the value of exports receded to £6,419,501. In that year, however, unusually heavy stocks of sugar were held over and although export returns show a reduction from 149,494 tons in 1948 to 110,968 tons in 1949, there was in fact a much smaller seasonal reduction in output. The effect of the carryover stocks was reflected in the 1950 exports. Copra production fell owing to a serious hurricane, from 34,600 tons in 1948 to 32,700 tons in 1949 and 28,197 tons in 1950. The value of exports of copra products remained almost the same, partly because of higher prices and partly owing to the greater proportionate shipments of oil which, of course, include the added value of local processing. Retained imports were valued at £6,566,612, resulting in an adverse balance of visible trade of £147,111.

In 1950, increased exports joined with diminished imports to bring about a substantial surplus on visible account ; it is probable that this came near to offsetting the net outflow on invisible account and that the territory was close to an overall balance in its external transactions. In 1951 exports fell to £6·4m. while imports rose to £9·4m.

The pattern of export trade has undergone considerable change in the past 15 years. In 1935 sugar accounted for 72 per cent of all exports and copra a further 12½ per cent At this time the new gold industry was just starting successful operations, but by 1939 this industry had ousted copra from second place in the Colony's exports. Ten years later another marked change had occurred. Sugar, gold and copra production were still at about pre-war levels, but the combined effect of high copra prices and the development of copra crushing mills had enabled the value of copra products to return to second place in export totals. The price of copra and consequently coconut oil rose far more proportionately than did sugar, whilst gold prices remained unchanged until the re-valuation of sterling. The average value of copra exports rose from £7 9s. 4d. per ton in 1939 to £53 11s. 10d. in 1949, an increase of slightly over 600 per cent, whereas sugar rose from £12 0s. 8d. per ton to £32 16s. 7d., an increase of 173 per cent in the same period. The changeover from export of raw copra to coconut oil gives added value to the industry. The effect of these changes is shown in the following table :—

CHANGES IN THE RELATIVE IMPORTANCE OF SUGAR, COPRA AND GOLD IN TOTAL EXPORTS

	1935		1939		1949		1950	
	Value	*% of Total Exports*	*Value*	*% of Total Exports*	*Value*	*% of Total Exports*	*Value*	*% of Total Exports*
	£		£		£		£	
Sugar	1,314,128	72·22	1,425,704	51·92	3,205,524	46·84	3,750,712	48·01
Raw Copra	230,263	12·65	204,289	7·44	729,943	10·67	544,401	6·97
Coconut Oil and Meal	1,690	·09	2,749	·10	983,937	14·38	1,008,319	12·91
Gold	54,019	2·97	928,128	33·80	1,123,241	16·41	1,420,578	18·18
	1,600,000	87·93	2,560,870	93·26	6,042,645	88·30	6,724,010	86·07

The types of goods imported have not shown any radical change over the period 1935-49, but there have been certain noticeable movements in the proportions of classes to the total. The following table shows the main classes of goods and the changes that have taken place :—

PRINCIPAL IMPORTS AS PERCENTAGE OF THE TOTAL VALUE OF IMPORTS

	1935	1949
Drapery	14·23	9·01
Machinery	8·37	7·79
Hardware	7·08	8·92
Petroleum Products	4·92	8·65
Flour, Sharps and Pollard	4·79	8·99
Bags and Sacks	4·01	2·96
Tobacco, etc.	2·56	1·65
Motor Vehicles	2·43	3·58
Manures	2·40	1·53
Timber	1·97	2·53
Coal	1·57	2·35
Fish	1·42	2·24
Other	44·25	39·80
	100·00	100·00

Drapery remains the largest single class of goods, but has fallen in comparative importance. The most significant proportionate increases are in flour and sharps and petroleum products. Flour and sharps have become more important mainly because of the extraordinary increase in price, but the rise is also due partly to the shortage of rice caused by inability to obtain normal supplies from Burma. Petroleum products have risen with the growth of motor transportation, which has been particularly marked since the completion of the circum-insular road in 1938. The import of bags and sacks has fallen in importance because of the development of local copra crushing mills and a tendency to ship copra in bulk rather than in sacks. Such other movements as have occurred are mainly due to supply difficulties and disproportionate rises in costs.

The direction of export trade has changed considerably as the table on the following page shows.

The proportion taken by the United Kingdom has fallen from one-half to just over one-quarter of the

DESTINATION OF EXPORTS

	1935	1949	1950
	% of Total Exports	*% of Total Exports*	*% of Total Imports*
United Kingdom	49·27	25·34	28·27
Canada	25·12	29·01	33·44
Australia	7·17	1·63	1·93
New Zealand	6·00	21·47	10·24
United States	2·24	16·63	19·24
Mexico	1·70	—	...
Others	8·50	5·92	6·88
	100·00	100·00	100·00

total, mainly because a large part of the pre-war sugar export went to the United Kingdom, but this has now been diverted to Canada and New Zealand under direction of the Ministry of Food in the United Kingdom which buys the whole output. Canada's and New Zealand's shares of exports have increased accordingly. The rise of the gold industry with its important effect upon total exports has caused major changes in the proportions of exports to various countries. Originally gold was exported to Australia, but during the war these shipments were diverted to the United States, which accounts for the large rise in the percentage of total exports consigned to the U.S.A. and the fall in Australia's share of total exports. The fall in the proportion of " others " is due to the direction of copra and oil exports to the United Kingdom under bulk purchasing arrangements. Previously a certain proportion was shipped to Mexico and European countries.

The proportion of imports from their several origins have not changed greatly, as will be seen in the following table.

The United Kingdom was the normal source of supply of the majority of the Colony's requirements in pre-war years, but fell away under wartime difficulties of supply and shipping to only 12·1 per cent in 1943. In the war years the Colony relied upon Australia and New Zealand, and the proportions of these countries rose in 1943 to 37 per cent and 17·3 per cent respectively. With the return to peacetime production and improved shipping, the United Kingdom has again become the Colony's main supplier with 32·0 per cent of total imports ; Australia's share has fallen to 30·0 per cent, and that of New Zealand to 8·8 per cent. Australia and New Zealand are the normal sources of the Colony's imported foods ; manufactured goods are largely supplied by the United Kingdom, but with the rise of secondary industries in Australia it seems probable that that country will provide an increasing share of the Colony's manufactured goods.

SOURCES OF IMPORTS

	1935	1949	1950
	% of Total Imports	*% of Total Imports*	*% of Total Imports*
United Kingdom	39·45	32·65	32·25
Australia	24·45	30·55	30·27
United States	7·57	8·12	6·30
India	6·90	5·54	5·26
Canada	4·52	4·72	2·22
New Zealand	3·62	7·11	8·77
Japan	3·15	—	—
Other	10·34	11·31	14·93
	100·00	100·00	100·00

It is interesting to note that the proportions of total imports arising from the United States has not fallen greatly compared with 1935, but the proportion from Canada has. There has been the most stringent import control which has reduced imports of such items as motor cars, canned fish, and many luxury and semi-luxury goods from these sources. The greater part of current imports is composed of petroleum products from the United States of America and timber from Canada. In addition there have been substantial imports of equipment.

The following tables show principal imports and exports by volume and value for the years 1940, 1948 and 1950, indicating the main sources and destinations.

PRINCIPAL IMPORTS BY VOLUME AND VALUE FOR 1940, 1948 AND 1950 SHOWING MAIN SOURCES

Article	Unit	1940			1948			1950		
		Quantity	Value (£)	Principal Countries of origin (with values in £000s)	Quantity	Value (£)	Principal Countries of origin (with values in £000s)	Quantity	Value (£)	Principal Countries of origin (with values in £000s)
Flour, wheaten (including wheat meal).	ton	3,416	38,078	Australia (all).	7,787	358,932	Australia (358).	8,615	321,053	Australia (321), New Zealand (1).
Rice	,,	2,001	30,115	Burma (25), India (3).	63	2,663	Australia (2).	577	28,375	Australia (all).
Sharps and Pollard	,,	6,884	76,386	Australia (all).	5,602	257,539	Australia (all).	8,398	318,081	Australia (all).
Butter, tinned and fresh ..	,,	1	172	—	30	7,831	New Zealand (7).	94	32,982	New Zealand (29), Australia (4).
Ghee	,,	3	331	—	83	27,772	Australia (22).	78	33,059	Australia (24), New Zealand (9).
Milk (all kinds)	,,	61	3,933	Australia (all).	308	41,992	Australia (30), N.Z. (11).	456	75,846	Australia (50), New Zealand (26).
Tea	,,	125	30,429	Ceylon (26), India (3).	164	77,476	Ceylon (74), India (2), Australia (1).	224	118,442	Ceylon (111), India (3), Malaya (2).
Vegetables, fresh	,,	3,673	29,423	New Zealand (20), Australia (7).	3,590	85,136	New Zealand (68), Australia (16).	3,707	124,129	New Zealand (110), Australia (14).
Meat (all kinds)	,,	210	18,759	—	720	99,065	New Zealand (88), Australia (11).	1,347	206,142	New Zealand (187), Australia (18), China (1).
Fish (all kinds)	,,	235	15,258	Canada (6), U.S.A. (4).	481	88,799	Canada (69), Australia (11).	795	137,330	S. Africa (63), U.K. (55), Norway (9).
Beer	gal.	144,499	28,317	Australia (27).	173,552	52,528	Australia (19), New Zealand (22), U.K. (11).	247,242	83,644	U.K. (42), New Zealand (21), Australia (20).
Tobacco (all kinds)	ton	55	46,193	Australia (31), U.K. (15).	82	78,630	Australia (37), U.K. (40).	103	125,836	U.K. (82), Australia (43).
Cyanide	,,	—	—	—	139	12,609	U.K. (12).	119	11,880	U.K. (all).
Sulphate of Ammonia ..	,,	—	—	—	2,719	68,705	U.K. (56), Australia (12).	4,573	129,673	U.K. (126), Australia (3).
Jute Bags and Sacks ..	,,	—	60,138	India (all).	2,380	209,809	India (all).	1,285	156,216	India (all).
Piece Goods—Cotton/Rayon	sq. yd.	4,409,466	169,338	Not available.	6,458,363	794,976	U.K. (642), Hong Kong (62), India (36), Japan (24).	3,883,969	460,224	U.K. (269), India (116), Japan (49), Italy (15), Australia (4).
,, ,, —Other kinds ..	,,	77,596	8,630		185,873	60,180	U.K. (48), Hong Kong (6).	72,009	28,373	U.K. (26), India (2).
Cordage and Rope ..	ton	156	10,380	Australia (7), Canada (2).	173	32,489	Australia (31).	206	42,965	Australia (30), U.K. (12), New Zealand (1).
Rubber Tyres and Tubes ..	—	—	21,364	U.K. (6), Canada (5).	—	123,208	U.K. (115).	—	44,930	U.K. (44).
Aircraft (parts)	—	—	—	—	—	38,331	U.S.A. (35).	—	87,362	U.S.A. (77), U.K. (4), New Zealand (3).
Machinery (all kinds) ..	—	—	149,310	Australia (62), U.K. (49), U.S.A. (32).	—	265,280	U.K. (121), Australia (92), U.S.A. (34).	—	432,684	U.K. (187), Australia (149), U.S.A. (82), New Zealand (8).
Motor Cars and Lorries ..	No.	90	14,730	U.K. (7), Canada (7).	434	169,592	U.K. (122), Canada (26).	413	222,962	U.K. (212), U.S.A. (8), Canada (3)
Motor Spirit	gal.	1,538,171	58,391	Netherlands East Indies (42), U.S.A. (16).	2,258,661	103,699	U.S.A. (71), Netherlands East Indies (25).	2,925,277	176,183	Netherlands East Indies (176).
Diesel Oil	ton	n.a.	50,729	Netherlands East Indies (36), U.S.A. (14).	9,525	87,706	Netherlands East Indies (50), U.S.A. (37).	12,893	167,091	Netherlands East Indies (163), U.S.A. (3), Canada (1).
Kerosene	gal.	383,522	20,679	Netherlands East Indies (9), U.S.A. (11).	482,876	48,552	U.S.A. (21), Netherlands East Indies (19).	676,624	89,838	U.S.A. (50), Persia (19), British East Indies (18).
Paints and Varnishes ..	—	—	22,007	Australia (14), U.K. (7).	—	106,435	U.K. (55), Australia (30), S. Africa (11).	—	76,764	Australia (50), U.K. (25), New Zealand (1).
Soap	—	—	5,995	Australia (5).	—	50,766	Australia (24), Hong Kong (20), N. Zealand (6).	—	11,090	Australia (10), U.K. (1).
Coal	ton	21,910	21,178	Australia (all).	21,613	65,831	Australia (all).	9,750	52,344	Australia (52).
Timber (all kinds)	s. ft.	4,714,034	43,356	Canada (30), Australia (13).	6,433,274	217,824	Canada (193), Australia (22).	3,683,291	148,337	Canada (114), Australia (34).
Cement	ton	3,944	18,753	U.K. (16), Australia (2).	6,150	53,154	U.K. (46), Australia (6).	8,038	78,347	U.K. (56), Australia (22).
Drugs and Medicines ..	—	—	22,672	U.K. (13), Australia (7).	—	51,960	U.K. (23), Australia (19).	—	80,510	U.K. (41), Australia (29).

PRINCIPAL DOMESTIC EXPORTS BY VOLUME AND VALUE FOR 1940, 1948 AND 1950 SHOWING MAIN DESTINATIONS

Article	Unit	1940			1948			1950		
		Quantity	Value (£)	Principal Countries of destination (with values in £000s)	Quantity	Value (£)	Principal Countries of destination (with values in £000s)	Quantity	Value (£)	Principal Countries of destination (with values in £000s)
Copra	ton	20,379	125,063	Mexico (68), U.K. (34), Australia (20).	21,352	992,234	U.K. (all).	10,158	544,401	U.K. (all).
Coconut Meal	„	—	—	—	4,391	54,477	U.K. (28), New Zealand (26).	5,009	62,038	U.K. (43), New Zealand (18).
Coconut Oil	„	146	2,683	New Zealand (all).	9,053	760,774	U.K. (all).	10,083	946,281	U.K. (946).
Bananas, fresh	Bunch	180,580	41,747	New Zealand (all).	289,371	94,996	New Zealand (94).	260,588	101,869	New Zealand (all).
Pineapples, Fresh and Tinned..	—	—	7,846	New Zealand (7).	—	34,592	New Zealand (22), Canada (10).	...	54,732	New Zealand (28), Canada (18), W. Samoa (5), Australia (2).
Sugar, Raw	ton	93,631	1,285,191	Canada (700), U.K. (583).	149,494	4,265,406	Canada (1,876), New Zealand (1,809), U.K. (508).	114,254	3,750,712	Canada (2,590), U.K. (567), New Zealand (499), Tahiti (57), W. Samoa (17), Tonga (12).
Molasses..	„	18,261	18,261	Australia (all).	25,402	25,402	Australia (all).	17,758	17,758	Australia (all).
Gold	oz.	—	—	—	105,712	1,011,225	U.S.A. (1,009).	103,111	1,420,578	U.S.A. (1,420), Australia (1).

IV. DEVELOPMENT

Government Activities and Plans

In 1945 a plan of development was prepared covering a period of 10 years and proposing an expenditure of £4,517,170. For a variety of reasons this had to be revised and the revised plan which was approved early in 1950 provided for the expenditure of £4,250,000 between 1949 and 1958. As a result of a further revision in November, 1950, the total expenditure was increased to £4,276,273 distributed as follows :—

TEN YEAR DEVELOPMENT PLAN 1949-58

	£	%	£	%
Basic Services				
Road development	720,000	16·84		
Ports and harbours	405,000	9·47		
Civil Aviation	340,000	7·95		
Telecommunications	216,200	5·06		
Electricity Supplies	603,900	14·12		
Water Supplies	297,991	6·97		
Walu Bay Reclamation	97,500	2·28		
Township Works	68,000	1·59		
Engineering Plant	75,490	1·76		
Fitting Shop, Suva	11,000	·26		
Sewerage Schemes	5,560	·13		
	———	———	2,840,641	66·43
Economic Services				
Agriculture	206,170	4·82		
Forestry	26,700	·62		
Fisheries	5,500	·13		
Geological Survey	24,642	·58		
Country markets	12,500	·29		
Slaughter Houses	33,000	·77		
Agricultural and Industrial Credit	150,000	3·51		
	———	———	458,512	10·72
Social Services				
Medical and Health	371,147	8·68		
Education	334,678	7·83		
Housing	120,000	2·80		
	———	———	825,825	19·31
Miscellaneous				
Aerial Survey	50,000	1·17		
Broadcasting	50,458	1·18		
Linguistic	2,000	·05		
	———	———	102,458	2·40
Reserve	48,837	1·14		
	———	———	48,837	1·14
Total Development Plan			£4,276,273	100·00

When the Plan was prepared it was anticipated that the necessary funds would be obtained from the following sources :—

	£	£
1. Allocation to Fiji under the Colonial Development and Welfare Act, 1945	1,110,000	
Allocation to Western Pacific High Commission (T.B. Survey)	14,115	
	1,124,115	
Less Expenditure on Suva Medical Centre, on Mosquito Control measures and on a Tuberculosis Survey between 1946 and 1948	32,010	
		1,092,105
2. Grants for Research Survey Schemes and Broadcasting from the central allocation under the 1945 Act		107,872
3. Loan Funds		1,559,086
4. Annual Appropriations from Revenue at £50,000 a year from 1950 to 1958		450,000
5. Appropriation from Surplus Balances		1,067,210
		£4,276,273

The bulk of the planned expenditure is allotted to the development of basic services and almost 17 per cent (£720,000) of total expenditure is accounted for by road construction, including £445,000 for the construction of feeder roads connecting native reserves with the main centres of consumption ; £125,000 is provided for new communication roads, £140,000 for surfacing existing roads and £10,000 for a road survey unit responsible for surveying and planning roads and ordering equipment and materials. As the Colony is dependent upon sea communications, £150,000 has been allotted for improving facilities at the port of Suva and a similar amount for the establishment of a wharf at Lautoka whilst £5,000 is to be spent on wharf construction for Tailevu Coast; £100,000 is provided for a new slipway at Suva to carry ships of up to 1,000 tons. A sum of £340,000 was provided as the colony's contribution towards an international airport at Suva ; this scheme has subsequently been abandoned owing to greatly increased costs and the airport at Nandi is now to be developed. Development of telecommunications includes the duplication of the Suva-Lautoka telephone line which is at present congested, the installation of an automatic exchange in Suva and the provision of rural telephones. In all expenditure on communications amounts to £1,681,200, about 39 per cent of total planned expenditure.

The main item of expenditure on electricity supplies is connected with the Navua River hydro-electric scheme towards which Fiji had planned to contribute £566,000, being one-quarter of the estimated total cost. The project, however, was abandoned in 1952 as preliminary investigations showed that costs would greatly exceed the original estimate. Under the head " Water Supplies " the Plan provides for the improvement of supplies at Suva, Rewa, Lautoka, Nandi, Lodoni, Vaileka, Tayau, Sigatoka, Savusavu and Labasa.

Provision is made for the development of Agricultural Stations at Koronivia, 11 miles from Suva, Sigatoka and in the Northern District of Vanua Levu where experiments will be undertaken and demonstrations given in cultivation methods suitable for the various zones. Provision is also made for the establishment of two district farms, one in Western Viti Levu and one in the Northern District and for the development of a farm institute for students at the principal agricultural station. A sum of £5,000 has been set aside for a modified survey of soil types in the Colony and £19,450 for a soil conservation scheme at Nandi. A drainage project is to be undertaken on the Navua coastal plain and the land utilised for rice cultivation and as pasture. It is also proposed to effect a planned resettlement of a group of villages in the Vatuvula-Naqali-Serea area of Naitasiri Province where land is likely to be available for the organised production of rice, bananas, native food crops, livestock products and other cash and subsistence crops. To meet the increasing demand for the seed of grasses and fodders it is proposed to produce seed for sale to farmers. A sum of £26,570 has been set aside for agricultural research including bio-chemical investigations to determine basic nutritional factors in existing pastures, feeds, and feeding stuffs and to assess the results of experimental work designed to improve the composition and management of pastures; botanical investigations and research into plant diseases and their control. To provide credit for those engaged in agriculture and industry unable to obtain such assistance on reasonable terms from other sources, an Agricultural and Industrial Loans Board with an initial provision of £F150,000 has been set up.

An allocation of £26,700 is made to cover the capital cost of implementing the new policy for forest development and £5,500 for the services of a Fisheries Officer to undertake work on the smoking and salting of fish and to advise on the management of a fish pond to be constructed at Ratu Kadavulevu. Provision is also made for market buildings at Mba and at Vatuwangga near Suva and for the establishment of a central slaughter yard at Suva.

Planned expenditure on medical and health services covers the development of the Suva Medical Centre (£247,022), Tuberculosis Control (£20,000), improvements to Lautoka hospital (£10,214), development of the Makogai Leprosy Colony (£29,200), additional accommodation at the Central Medical School and the Colonial War Memorial Hospital, Suva (£11,950), and the improvement and extension of hospital laundry facilities (£26,500). A sum of £4,051 is to be spent on the establishment of a medical research library in Suva and £480 on research into anaemias and dental disease. In addition a Tuberculosis Survey covering Fiji, the Gilbert and Ellice Islands and the Solomon Islands is to be carried out at an estimated cost of £21,730 of which £7,615 is to be met from Fijian funds.

In the field of education provision is made for the construction of the Queen Victoria School for Fijian students near Suva (£100,000), technical centres at Lambasa and Lautoka (£14,000), seven Indian Central Schools (£59,500), additional classrooms for the Fijian school at Ratu Kandavulevu (£14,000), improvements and extensions to the Fijian girls' school at Ande Thakombau (£17,000), and extensions to the Indian Secondary School at Natambua (£3,500). A further £36,000 has been allocated for the provision of quarters for the teaching staff at the technical centres, the Indian central schools, Andi Thakombau school and Natambua secondary school. A fund is to be established (£58,000) to encourage communities to build their own schools by making grants towards the cost of building. An Educational Research Institute has been established at an estimated cost of £32,678 to create and standardise a series of tests of intelligence and practical ability and to study teaching methods and

ESTIMATED EXPENDITURE UNDER THE DEVELOPMENT PLAN 1949–1951

	Planned Expenditure 1949-58	*Actual and Estimated Expenditure* 1949-51				*Percentage of Planned Expenditure*
		1949	1950*	1951†	*Total*	
	£	£	£	£	£	%
Basic Services						
Road development	720,000	11,988	44,750	151,500	208,238	28·92
Ports and Harbours	405,000	117	9,200	84,000	93,317	23·04
Civil Aviation	340,000	—	1,000	78,000	79,000	23·24
Telecommunications	216,200	—	16,000	92,872	108,872	50·36
Electricity Supplies	603,900	28,363	10,900	14,639	53,902	8·92
Water Supplies	297,991	16,562	23,274	92,686	132,522	44·47
Walu Bay Reclamation	97,500	26,570	59,930	11,000	97,500	100·00
Township Works	68,000	—	11,088	20,000	31,088	45·72
Engineering Plant	75,490	—	2,000	37,474	39,474	52·29
Fitting Shop Suva	11,000	1,235	—	9,765	11,000	100·00
Sewerage Schemes	5,560	—	—	5,560	5,560	100·00
Total Basic Services	2,840,641	84,835	178,142	597,496	860,473	30·29
Economic Services						
Agriculture	206,170	20,380	24,518	35,513	80,411	39·00
Forestry	26,700	—	—	3,000	3,000	11·23
Fisheries	5,500	—	200	3,000	3,200	58·18
Geological Survey	24,642	39	5,726	8,676	14,441	58·60
Country Markets	12,500	—	1,000	5,000	6,000	48·00
Slaughter houses	33,000	—	—	100	100	·03
Agricultural and Industrial Credit	150,000	—	300	500	800	·53
Total Economic Services	458,512	20,419	31,744	55,789	107,952	23·54
Social Services						
Medical and Health	371,147	11,081	34,541	52,964	98,586	26·56
Education	334,678	15,935	52,055	64,465	132,455	39·58
Housing	120,000	—	38,000	2,100	40,100	33·42
Total Social Services	825,825	27,016	124,596	119,529	271,141	32·83
Miscellaneous						
Aerial Survey	50,000	—	—	25,000	25,000	50·00
Linguistic Research	2,000	1,442	558	—	2,000	100·00
Broadcasting	50,458	—	—	25,833	25,833	51·20
Total Miscellaneous	102,458	1,442	558	50,833	52,833	51·57
Total planned expenditure	4,227,436	133,712	335,040	823,647	1,292,399	30·57
Reserve	48,837					
Total expenditure	4,276,273					

* Revised Estimates. † Approved Estimates.

curriculum with a view to the ultimate production of courses of study and textbooks based on local needs.

Early in 1948 a Committee was appointed to consider a scheme for industrial housing in Fiji and recommended the construction of 100 houses in the Suva area in the first instance. The Committee also made recommendations regarding sites, plans, contracts, the constitution of a Housing Board and the enactment of a Housing Ordinance. Arising out of the recommendations of the Committee a sum of £80,000 has been set aside for industrial housing at Suva. Housing for Development Staff is estimated to cost a further £40,000.

Provision is also made in the Development Plan for an aerial survey, linguistic research and broadcasting. A reserve of £48,837 is to be created to meet contingencies.

Expenditure on the various development schemes to the end of 1949 amounted to £133,712 and a further £263,566 was spent by the end of 1950. Expenditure in 1951 was estimated at £823,647, giving a total estimated expenditure for the first three years of £1,292,399 or approximately 30 per cent of total planned expenditure over the 10-year period. This expenditure is shown by categories in the table on page 113. Actual expenditure in 1951 was only about £626,000.

There has been appreciable progress although work was retarded through shortage of personnel and materials and it is anticipated that the rate of progress will increase further in 1952.

Other Development

There has been little post-war development of private industrial undertakings. This appears to be due to the high cost of buildings and plant, supply problems, and labour shortages, rather than a lack of possible avenues for investment. Most activity has been confined to replacement of existing buildings and plant much of which was overdue because of wartime conditions. There are, however, two important exceptions.

A new copra crushing and margarine plant has been established with a capital outlay of £200,000. This factory has the latest equipment and is capable of producing 10,000–11,000 tons of coconut oil per annum. The margarine factory has a capacity of 1,500 tons per annum which would consume about 1,350 tons of oil. In its initial stages production of margarine was running on one shift at 500–750 tons per annum. The local requirement of margarine is still uncertain but the company may export part of its product. Another by-product is coconut meal and annual production is approximately 5,000–6,000 tons.

Tuna fishing was another new enterprise established during the post-war period, the undertaking having been financed by American capital. Some £190,000 was spent on research and initial expenses and £168,000 on special vessels and equipment, but the project was abandoned in 1951 owing to insufficient supplies of fish.

Apart from industrial investment there has been a good deal of activity in the construction of private dwellings over the past three years but housing is still below requirements.

PITCAIRN ISLAND

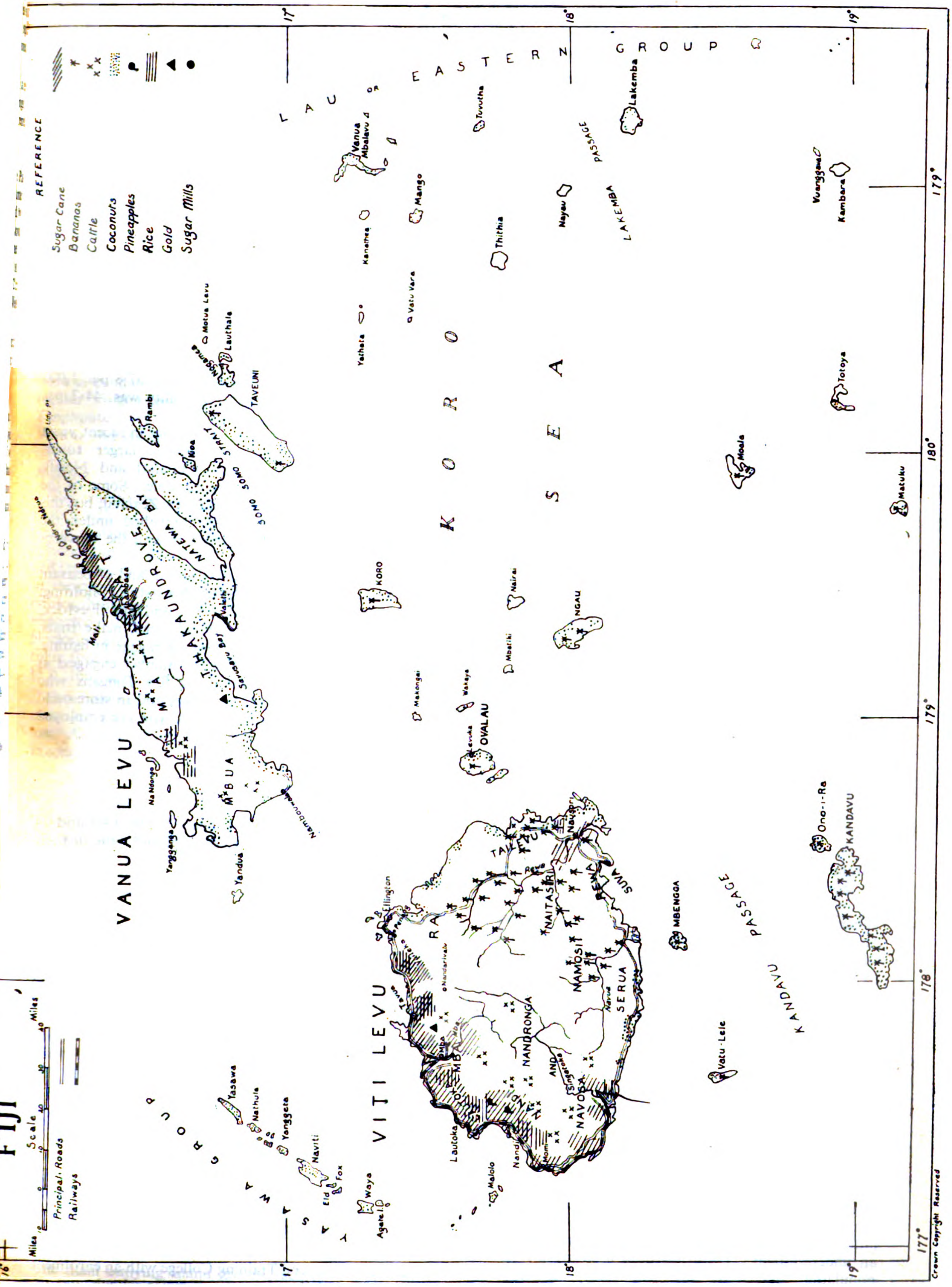
This island of two square miles is situated in the Pacific Ocean midway between Australia and South America, latitude 25 3′S, longitude 130 8′W. It was settled by the mutineers of the Bounty in 1790. After the removal of the inhabitants to Norfolk Island in 1856, some forty returned. In 1948 the population was 124. It is now administered by the Governor of Fiji. Prior to 1952 it was administered by the High Commissioner for the Western Pacific, who was then also the Governor of Fiji.

The island has a council consisting of chief magistrate, two assessors, a secretary and chairman of the internal committee elected by the inhabitants.

The principal source of revenue is the sale of stamps which was estimated to yield £F3,375 in 1951 out of a total revenue of £F6,400. Interest and dividends yielded £F1,975. Estimated expenditure was £F4,227 of which £F1,100 was for education. The general revenue balance in 1950 was about £F45,000. Sea communication is limited to calls of liners to and from New Zealand to Panama, which heave to for a couple of hours.

The economy is mainly a subsistence one. Food crops including coconut, breadfruit, bananas, potatoes, taro, sweet potato, ginger, turmeric, sugar cane, oranges, lemons, pineapples, melons, papaya, mangoes, custard apples, guavas, and certain European vegetables, are grown, and some fish and shellfish are caught. Some of the islanders keep goats and chickens. Certain crafts are carried on locally, including hat and sandal making, boat building (from imported wood) and wood turning, carving and inlaying.

Trade is on a very small scale. A certain amount of food and articles of tourist interest are sold to ships passing the island, and some consumer goods are imported.


FIJI
Scale
Miles 0 10 20 30 40 Miles
Principal Roads
Railways
REFERENCE
Sugar Cane
Bananas
Cattle
Coconuts
Pineapples
Rice
Gold
Sugar Mills
17°
18°
19°
177°
178°
179°
180°
VANUA LEVU
VITI LEVU
KORO SEA
LAU OR EASTERN GROUP
YASAWA GROUP
NATEWA BAY
SOMO SOMO STRAIT
TAVEUNI
Rambi
Kioa
Lauthala
Ngamea
Motua Levu
MATHUATA
THAKAUNDROVE
MBUA
Savusavu Bay
Nambouwalu
Na Ndongo
Yanggange
Yandua
Mali
Labasa
KORO
Makongai
Wakaya
OVALAU
Levuka
Mbatiki
Nairai
NGAU
Yathata
Kanathea
Vanua Mbalavu
Vatu Vara
Mango
Tuvutha
Thithia
Nayau
LAKEMBA PASSAGE
Lakemba
Vuanggava
Kambara
Totoya
Moala
Matuku
Yasawa
Nathula
Yanggeta
Naviti
Waya
Eld
Fox
Agate
Malolo
Lautoka
Nandi
Ellington
Tavua
Mba
Nandarivatu
RA
TAILEVU
NAITASIRI
NAMOSI
REWA
SUVA
Nausori
NANDRONGA AND NAVOSA
SERUA
Sigatoka
Navua
MBENGGA
Vatu-Lele
KANDAVU PASSAGE
KANDAVU
Ono-i-Ra
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TONGA

NOTE.—Currency used throughout this chapter is Tongan currency except where otherwise stated.

1. GENERAL BACKGROUND

Geographical Features

The Tonga Group was formerly known as the Friendly Isles, the name given to it by Captain James Cook in 1777. By a Treaty of Friendship and Protection signed in 1900 Tonga was recognised as a self-governing Kingdom under the Protection of Great Britain which maintains a resident agent and consul who advises the Government of Tonga when required.

Tonga comprises 150 islands and islets with a total land area of 269 square miles and lies approximately between latitude 15° and 23·5° South and longitude 172·5° and 177° West.

The islands run north and south in two narrow parallel chains, the eastern being limestone and the western volcanic formation. From north to south the Groups are Vava'u, Ha'apai, Kotu, Nomuka, Otu Tulu and Tongapatu. The three most important groups are Tongapatu, on which the capital Nuku'alofa is situated, Ha'apai and Vava'u. The islands are low lying and seldom rise more than 100 feet above sea level except those of a volcanic nature which rise to between 350 and 3,380 feet in height.

Volcanic activity occurs throughout the whole length of the western chain. There are active volcanoes on Falcon Island, Tofua, Late, Fonualei and Nuiafo'ou (Tin Can Island). Falcon Island (or Fonuafo'ou) is the island which disappears and reappears at intervals. The most recent eruption was in September, 1945, when the 1,300 inhabitants of Tin Can Island had to be evacuated and settled on 'Eua.

Apart from the small streams on 'Eua and Nuiatoputapu there is no running water in the Group.

The climate is semi-tropical. The absolute maximum temperature rarely rises over 90° F. or falls below 80° F., and the absolute minimum rarely rises above 70° F. or falls below 50° F. The average mean temperature ranges between 70° F. and 80° F. The hottest months are January to March and the coolest July to September.

Rainfall tends to be low and variable. It is heavier in the northern islands. The mean average ranges from 120 inches in the island of Nuiafo'ou to 65 inches in the Tongapatu Group. There is a wet season December to April and droughts are often experienced in the months October to December. Humidity is high, ranging from 75-85 per cent in various islands from December to June.

The prevailing winds are the S.E. trades which blow constantly from May to November. There is a hurricane season November to March, although hurricanes are not experienced every year. The most disastrous have been in 1909, 1912-13, 1930, 1931 and 1932.

Tonga enjoys a sunny climate with 50-55 per cent of possible number of sunshine hours per year.

Population

Tonga did not suffer the depopulation which accompanied European contact in most Pacific islands. Visiting missionaries estimated the population as 18,500 in the latter end of the eighteenth century, but this was probably an underestimate. There has been a steady increase in population during the last half-century, estimated at approximately 70 per cent. The population at the end of 1951 was 49,667.

Prior to the war annual censuses were taken of which the last was held in 1939. The census figures for 1938 and the estimates for 1951 are as follows :—

POPULATION OF TONGA

	1938	1951
Tongans	32,490	48,460
Europeans	407	235
Persons of mixed descent	477	580
Other Pacific Islanders	302	312
Others	109	80
Total	33,785	49,667

The average annual increase between 1932 and 1939 was approximately 2·4 per cent and between 1938 and 1951 3·1 per cent.

The birth rate in 1951 was estimated at 37·8 per 1,000 and the death rate 9·1. Infant mortality was 44·7 per 1,000 in 1951.

There is very little migration. There has in recent years been a certain movement towards the larger towns Nuku'alofa (Tongapatu), Pangai (Ha'afai) and Neiafu (Vava'u) but this has not been appreciable. Some of the part-Europeans migrate to Fiji and New Zealand, but this class is small and movement is controlled under the Passport Act (1922) and by agreement with the Governments concerned.

Tonga is an agricultural country and a land of peasant proprietors, each of whom cultivates his statutory holding. The men grow foodstuffs, make copra and tend livestock, while the women perform household tasks, make mats, baskets, and tapa cloth and both sexes engage in fishing. There is no contract labour and the number engaged as abourers is negligible. There are a few Tongans who work as mechanics, carpenters, drivers and in stores and a few with professional qualifications who are employed mostly in Government service.

Social Amenities

Education

This is compulsory for all Tongans between six and 14 years. Most adults in Tonga can read and write in their own language. Those with a secondary education read and understand English well, but many experience difficulty in adequately expressing themselves in English. Primary schools numbered 132 with 10,626 pupils and 310 teachers in 1950, and secondary schools ten (of which three are co-educational) with approximately 1,000 boys and 650 girls. Of the primary schools 69 are controlled by the State and 63 by the missions, while most of the secondary schools, except Tonga Government College, are mission schools. Instruction in primary schools is in the vernacular, the main subjects being Tongan, English, the three " R's," history, geography, hygiene, needlework and native crafts.

There is a matriculation school, while a scholarship system for study abroad has been in existence for 20 years.

Vocational training is provided by a vocational school with an enrolment of 30 which trains for various branches of government and by the various government departments which give apprenticeship training in electric wiring, power-house operation, machine-shop practice and other trades. Instruction in tropical agriculture is given in boys' secondary schools.

There is a Teachers' Training College with an enrolment of some 50, and there are also summer schools and refresher courses. The primary schools are staffed practically entirely by Tongan teachers. The secondary schools usually have a European principal. There are 177 Tongan teachers in the Government service.

Health

The health of the Tongans is comparatively good. The major diseases are yaws, tuberculosis, filariasis, typhoid and eye complaints. Tuberculosis accounts for nearly a quarter of certified deaths. Its spread is to some extent connected with bad housing, the problem being, as in most countries, as much a social as an economic one. A tuberculosis survey is at present being carried out in the Group. Typhoid is prevalent, its incidence being no doubt connected with the poor water supply. Leprosy is not common and the incidence of hookworm has been lowered considerably by the Government campaign for cement floor latrines launched some years ago.

There are three hospitals, the main one at Nuku'alofa (70 beds) and the others at Pangai (Ha'apai) and Neiafu (Vava'u). There are also rural dispensaries on most of the inhabited islands. Tongans receive free medical and dental attention. Regular medical and dental inspections are carried out in schools and ante-natal and child welfare work is conducted by means of a motor-clinic which pays regular visits (weekly in most cases) to all villages on Tongapatu. It is proposed to extend this service to Vava'u and Ha'apai.

Housing

The traditional Tongan house constructed of wooden posts, with thatched roofs, walls and screens is slowly being replaced by a hybrid type in which the shape is retained but the thatched roof replaced by corrugated iron, and the reed or grass walls by walls of sawn timber. Owing to shortage of supplies maintenance and repair of these houses has created a problem as supplies have to be imported. The average cost of a house built of concrete blocks or timber on concrete foundations was 2s. 9d. per cubic foot in 1949. No house may be built which is under 12 ft. long and proportionately broad.

The building standards of the Public Works Department are good but those of private enterprise generally low. All new Government buildings are now constructed in concrete.

Social Security

Since unemployment is practically unknown no system of unemployment relief has been considered necessary. There are no pension schemes other than those for Government servants, and no thrift schemes other than facilities provided by the Government Savings Bank.

Political Structure

Constitutional and Political Background

Tonga has a constitution with a hereditary constitutional monarch, Cabinet, Privy Council and Legislative Assembly. (The latter meets once a year.) Under the Treaty of Friendship Great Britain undertakes to protect Tonga against aggression and external attack and is responsible for its external affairs. The functions of the British Agent and Consul include advising the Tongan Government on external affairs, finance, and the appointment of Europeans in Tonga Government service, and exercising judicial powers with respect to British subjects and foreigners. He was formerly responsible to the High Commissioner for the Western Pacific, but is now responsible to the Governor of Fiji. Subject to these provisions the internal administration of the Kingdom of Tonga is in the hands of the Tonga Government.

The main outlying island groups each have a resident Tongan governor responsible for the enforcement of law and order and in the isolated islands these duties fall on the Police Magistrate. There are also district officers in the villages and settlements.

Principal Economic Legislation

General

The formation and registration of *companies* is controlled by the Companies' Act of 1912 requiring registration of all companies and partnerships of over 10 persons.

Since 1940 private trading in copra and bananas has been prohibited under the Agricultural Organisation Act which set up the Copra and Banana Boards.

The *Contract Act* of 1921 requires the registration of all contracts for goods supplied, money lent or services rendered where consideration exceeds £5. Such contracts must be drawn up in the specified form and registered or no action for recovery of sums above £5 may be maintained in court.

Legislation to control *mining* activities was introduced for the first time in 1949 although there is at present no mining activity.

The prices of essential goods and daily wages are controlled by legislation under the *Prices of Goods and Services Act*, 1947 which was introduced as a result of economic upheavals during and after the war.

Trade Tariffs

Import duties account for a third to one half of total revenue. The General Tariff is 33⅓ per cent *ad valorem* and the British Preferential Tariff 15 per cent *ad valorem*. There are also a number of specific duties of which the principal are (1951) :—

SPECIFIC IMPORT DUTIES

	General Tariff		*British Preferential Tariff*	
	s.	d.	s.	d.
Ale, beer, porter, per gallon ..	3	6	2	6
Bags or sacks per dozen ..	1	6	free	
Benzine, per gallon		6		6
Cigars and cigarettes, per lb. ..	18	0	16	0
Flour, per 150 lb.	4	6	2	3
Kerosene of 150°, per gallon ..		4		4
Kerosene under 150°, per gallon	1	6	1	6
Matches, per gross	2	6	free	
Spirits (per proof gallon) ..	87	0	61	0
Spirits underproof, per gallon ..	67	0	56	0
Sugar, per lb.		1½		½
Timber (undressed), per 100 super ft.	3	0	2	0
Timber (dressed), per 100 super ft.	3	6	2	6
Tobacco manufactured, per lb. ..	13	0	11	0
Tobacco unmanufactured, per lb.	4	6	2	6
Wines (still), per gallon	11	0	9	0
Wines (sparkling), per gallon ..	19	0	15	0

A number of articles including machinery and implements for agriculture and livestock, fruit cases, wire netting, insecticides and manures are admitted free under the Preferential Tariff and pay only 20 per cent under the general tariff. Other articles including books, eggs for hatching, ice, meat, music and seeds are free whether from British or other sources. There is a Port and Service Tax of 5 per cent *ad valorem* on all imports whether dutiable or free.

The only *export duty* is £T5 per ton levied on copra exports. *Import Licences* were still required in 1951 for a small range of commodities from the sterling area and for all imports from certain non-sterling countries.

Labour

Labour legislation has not been considered necessary apart from the provisions of the Prices of Goods and Services Act which lays down maximum wages payable for certain jobs.

Land Tenure

The system under which land is owned and leased in Tonga dates back to ancient times when it belonged to the Tui Tonga who bestowed it at will on the various chiefs or confirmed their ancestral rights over it. The hereditary nobles leased parts of their lands to the commoners. In 1890 the Crown was made responsible for the collection of rents, the granting of allotments and the eviction of tenants from hereditary estates, thus reserving for itself ultimate control over them.

The law as it now stands provides that every adult male taxpayer is entitled to a tax allotment of 8¼ acres and nobles must provide such allotments for their own people out of their hereditary estates, in return for which they receive a nominal rent of 1s. per acre per annum. Such allotments are hereditary and pass from generation to generation in accordance with the local laws of succession.

Tenants may be evicted for non-payment of rent or for failing to comply with planting regulations. Each taxpayer is also entitled to a rent-free town allotment for residential purposes of a minimum area of 132 square yards.

Land not required for immediate allocation as tax or town allotments may be leased to non-Tongans. Such leases are subject to rigid control and are only granted after prior approval of the Cabinet. A number of large plantations are held on lease by non-Tongans. Leases of this type are not normally granted now for terms of over 21 years as such land will be required by the increasing indigenous population. (For the same reason immigrant settlement is not encouraged.) Compulsory renewal of leases is made under certain circumstances under the Leases (Renewal) Act 1934, provided the land is not required for allotment to taxpayers, whose rights are paramount.

Immigration

The Immigration Restriction Act of 1932 requires that all persons entering Tonga must have an entry permit. Immigration is not encouraged and such permits are not normally granted to persons wishing to enter and reside in Tonga for periods over six months. Permits are not required by officers and crews of ships or aircraft in transit, persons resident in Tonga for more than 12 months prior to 1932 and officers and servants of the Tongan Government or of any other government in the British Commonwealth.

Communications and Transport

External Transport

Because of its limited resources Tonga, like many other Pacific Islands, is unable to attract regular ocean-going passenger and cargo steamship services. There is a monthly passenger and cargo service between Auckland, Suva, Nuku'alofa, Vava'u and Apia (Samoa). Overseas vessels, chiefly British, Norwegian and American, call as occasion demands to load copra and discharge timber, steel, etc.

Both Nuku'alofa (Tongapatu) and Neiafu (Vava'u) have harbour facilities and are ports of entry for overseas vessels.

A fortnightly air service which had been operating between Tonga and Fiji in 1950 ceased to operate in 1951. There is a first-class aerodrome on Tongapatu and there are limited seaplane facilities in the two harbours.

Internal Transport

The main islands are well provided with roads. In Tongapatu there are 60 miles of metalled road and in Vava'u 18. Feeder roads are mostly unsuitable for heavy traffic in the wet season.

There are no railways in the Group.

Water Transport.—Inter-island transport is carried out by relatively small sailing vessels, with or without auxiliary engines. The Tongan Government maintains an auxiliary ketch.

Telecommunications

Wireless communication is maintained by a station operated by the Government in Nuku'alofa and by several sub-stations in other parts of the Group. There are no telegraph stations. The capital has a telephone system with 217 subscribers. There is no local broadcasting service.

II. PRODUCTIVE ACTIVITIES

Agricultural Conditions and Methods

The total land area of the Group is approximately 269 square miles, a large proportion of which, unlike many other Pacific islands, is suitable for cultivation. Every Tongan male over 16 may apply for a tax allotment of 8¼ acres and a town site of one rood 24 perches.

No scientific soil surveys have been made but the soils appear comparatively rich. There are two main types—those developed over the volcanic material of the western chain and those overlying the coral formation on Tongapatu, Ha'apai, Vava'u and 'Eua. The soils of Tongapatu and Vava'u are sandy loams, loosely compacted, free-draining and ranging from chocolate brown to red brown. The humus content is fair to good in the flat areas, due probably to the system of bush-fallowing and close planting of crops. Soil erosion is not a problem since sheet erosion does not occur in the flat areas and the steeper areas of Vava'u are protected by the covering of coconuts and scrub.

The usual method of preparing land for cultivation consists of weeding and burning. After intensive cropping for a number of years varying from 2-4, the land is left to fallow for from 5-10 years. No attempt is made to restore fertility by crop rotation and no artificial fertilisers are used. Water for irrigation and for livestock is pumped or drawn from wells. There are no mechanical pumps.

Copra is the main cash crop followed by bananas, and a large variety of tropical fruits and vegetables are grown throughout the year, mainly for local consumption, including yam, taro, sweet potato, maize, tapioca, sugarcane, mango and citrus. European vegetables can also be grown in the cooler months.

In 1940 an Agricultural Act was passed setting up a Council of Agriculture and providing for the formation of local producers' associations, co-operative societies and commodity marketing boards. The Council of Agriculture is charged with the functions of encouraging the planting of food and cash crops, controlling the marketing of export crops, investigating new markets and generally assisting the development of agriculture and industry.

Private trading in the two principal export crops is prohibited, the entire export surplus of copra and bananas being purchased and sold by the Copra Board and the Banana Board. Under the Act, Tongan tax allotment holders are required by law to plant half of their allotment with coconuts and the remainder with specified food crops as determined by regulations issued from time to time.

Local Food Products

Usually about one-third of the tax allotment is cultivated and the remainder left in bush or coconuts. Local food crops are mainly those with a high carbohydrate content, the most extensively grown being yam, sweet potato, taro, banana, plantain, arrowroot, pumpkin and maize. The food crops which an allotment holder was required to plant in 1949, for example, were as follows :—

FOOD CROPS

Crop	*No. of plants which must be planted (Per allotment 8¼ acres)*
Yams	600
Taro	150
Tapioca	200
Arrowroot	50
Bananas	100
Plantains	10
Tapa	100
Reed	50
Kava	10
Vau	10
Sweet Potatoes	300
Maize	100

With the exception of a little home-grown maize, cereals and pulses are not grown, the flour consumed being imported. The diet of the Tongan is not well balanced except when supplemented by reef marine foods, and there is considerable scope for improving nutritional standards by the inclusion of grain and legume crops and the extension of stock raising.

Livestock

The Tongan usually possesses a horse for transport, a few pigs and poultry and a few goats. Because of the small size of the tax-allotment, pigs, poultry and goats are usually kept in the village or on the town allotment, and are fed on coconuts, bananas and scraps. The raising of cattle on a commercial basis with the exception of herds on the Royal estates and those of a few nobles is in the hands of Europeans. Cattle are raised primarily for beef, the average weight of a beast on the hoof being about 500 lb. There are a number of small dairy herds of 10–15 head which supply milk to Nuku'alofa.

The numbers of livestock recorded in the 1938 census were approximately 5,500 horses, 3,000 cattle, 6,000 goats, 24,000 pigs and 64,000 fowls and ducks.

A census carried out as at 15th July, 1950, in connection with the world-wide agricultural census instituted by F.A.O., revealed the livestock population to be as follows :—

LIVESTOCK—CENSUS, 1950

	Horses	*Cattle*	*Goats*	*Pigs*
Tongatapu ..	3,433	1,101	572	11,178
Vava'u	1,631	460	652	6,108
Ha'apai	955	115	606	7,333
Niuatoputopu ..	157	—	11	544
	6,176	1,676	1,814	25,163

The figures given above for 1950, in spite of the continued control of meat imports, show a substantial increase over those for the previous year.

The Group is free from serious livestock diseases.

Cash Crops

Tonga is dependent on one main cash crop—copra—and a number of minor cash crops including bananas, candlenuts, fungus, watermelons and pineapples ; 96 per cent of exports are copra. As Tonga has little to fall back on in the event of a decline in the demand for copra, the possibilities of other cash crops such as groundnuts, cocoa, European vegetables, and citrus are being investigated. The soil is well suited to groundnuts, the average yield being estimated at ¾ ton per acre.

Copra

The coconut grows well throughout the group and has always been a source of food, drink and oil for Tongans. About one-fifth of the crop is consumed locally. According to a census taken in 1938 there were 3¼ million coconut trees in the group of which over a third were on Tongapatu. Only about 2½ per cent of total palms belonged to non-Tongans.

Production is affected not only by climatic conditions and world prices, but also by availability or non-availability of shipping. When shipping space is inadequate the Copra Board (which is the sole purchaser) is forced to discontinue buying and as the villages do not possess storage facilities, the copra deteriorates or the nuts become unsuitable for copra. In the post-war period, lack of shipping still hampered production in 1949 and 1950.

Production, exports, and the annual carry-over are shown in the table below for the immediate pre-war period and for post-war years :—

PRODUCTION AND EXPORTS OF COPRA.
1938–51

Year	*Pro-duction (Quantity)*	*Exports*		*Carry-over**	
		Quantity	*Value*	*Quantity*	*Value*
	Tons	*Tons*	*£T*	*Tons*	*£T*
1938	...	12,428	79,799	1,847	12,427
1939	...	10,500	64,545	2,519	16,240
1944	11,015	12,184	256,930	3,717	84,943
1945	9,405	8,178	164,734	4,944	112,909
1946	11,171	7,550	172,550	8,565	274,000
1947	14,273	18,967	698,242	3,871	179,409
1948	14,355	14,964	779,464	3,262	183,487
1949	15,137	13,786	814,073	4,144	225,523
1950	15,686	16,703	995,514	3,127	165,557
1951	N.A.	19,222	1,270,650	N.A.	N.A.

* Copra awaiting shipment at 31st December.

The average prices per ton paid to producers by the Copra Board, in 1950, were : 1st grade, £T44 ; 2nd grade, £T38 ; 3rd grade, £T14.

The whole of the crop is sold to the United Kingdom Ministry of Food under a long-term contract extending until 1957 at prices negotiated annually with a maximum floor and ceiling of 10 per cent on the previous year's price. For price paid by the U.K. Ministry of Food, see page 95. There is a levy arranged on a sliding scale of 10s. per ton on 20 tons to £12 19s. 6d. per ton on 500 tons which is paid into a stabilisation fund, and an export duty of £5 per ton plus 1s. per ton wharfage.

Bananas

These were introduced at the beginning of the century and climate and soil have proved very suitable. The crop is singularly free from disease. Owing to transport difficulties fruit for export is only grown in the Tongapatu and Vava'u Groups.

Exports for a series of years and the amounts paid to growers have been :—

EXPORT OF BANANAS 1937-51 †

Year	*No. of cases*	*Value*	*Amounts paid to Growers*
		£T	£T
1937 ..	13,715	4,128	2,033
1938 ..	10,825	3,507	2,133
1939 ..	31,022	12,025	7,434
1946 ..	79,654	50,116	26,784
1947 ..	43,080	27,104	14,795
1948 ..	48,070	36,970	19,539
1949 ..	45,753	40,033	24,456
1950 ..	60,650	53,525	32,236
1951 ..	74,252	68,256	N.A.*

* N.A. = Not available.

† Exports by Banana Board. There are a few cases shipped by other persons. The 1951 figures are provisional figures for total banana exports.

All fruit is purchased and marketed by the Tongan Banana Board and the whole crop is sold to the New Zealand Internal Marketing Division under a quota system at a ruling price determined by the latter for Fiji, Tonga and Samoa fruit.

The selling price per case in September 1949 was 17s. 6d. (Tongan currency). This was distributed as follows :—

	s.	*d.*	
Paid to producer ..	11	0	(6d. transport costs met by producer)
Cases	4	3	(average per case)
Dead freight		3	
Port and Service Tax ..	1	6	
Harbour Charges ..		2	
Agency fee		2	

A certain quantity of cases is produced locally but most are imported in shooks from New Zealand. Local cases cost about 3s. 2d. made up and those from imported shooks 5s. in 1949.

An improved shipping service which was introduced in 1951 has made possible the planting of larger areas and a substantial increase in production. All fruit is grown on individual tax-allotments there being no plantations owned by persons or companies.

Pineapples, Watermelons and Citrus

These all grow well ; plantings are gradually expanding as additional shipping becomes available. A New Zealand company has established a small factory in Vava'u for the expression of citrus, pineapple and fruit juices for shipment to New Zealand. There may be an expansion in sale of fresh citrus and vegetables to New Zealand, but stringent New Zealand import restrictions with respect to quality in the case of citrus may hinder its development.

Candlenuts

These grow wild and are being exported in increasing quantities to Fiji and Australia. The oil is used in the manufacture of paints and varnishes. A pilot plant for the extraction of oil in Tonga is in operation.

Forestry

There are limited areas of forest lands in 'Eua and Vava'u. There are practically no hardwoods and only a limited supply of softwoods suitable for fruit cases. Apart from this there are no locally grown timbers of any economic value and all constructional timber must be imported.

Afforestation with rapidly-growing timber species is considered a matter of urgency, the most promising area being the island of 'Eua. Some of the timbers suggested for trial are Mahogany, Teak, Yemane, Kauvula, Casuarina and Albizzia

Fisheries

There is an abundance of fish in Tongan waters. Sharks and turtles are plentiful and lobsters and crayfish are caught on the reef at low tide on moonless nights. Local methods of catching fish are primitive but effective. Hand-nets, lines, spears and fish fences are used. There are no fishing fleets, organised fishing by private or foreign enterprise on a commercial scale being prohibited. There are no fish markets.

Minerals

Hunga Tonga and Hunga Ha'apai are reported to contain phosphate deposits, but there is no anchorage and exploitation is not considered a commercial proposition. There are no other known mineral resources.

Village Industries

There is no manufacturing in Tonga apart from two small processing industries. These are the fruit-juices plant referred to above and a one-man business devoted to the dehydration of bananas in Nuku'alofa. Both these products are marketed in New Zealand. If the market for dried bananas expands it will be possible to eliminate the waste of a large quantity of bananas which now ripen in between normal shipments to New Zealand.

Village industries are restricted to the making of tapa, the plaiting of mats, baskets and fans and canoe building. All are of high quality and excellent workmanship, but are seldom sold.

Other Economic Activities

Tourism

There are no tourist facilities, and this trade is not encouraged owing to inadequate hotel accommodation and to transport difficulties. Tourists must have a landing permit, which is only issued on proof that satisfactory arrangements have been made prior to entry for accommodation and for return passages.

Distributive Trade

Trading is carried on by a few relatively large importing firms and numerous small retailers. Some five of the former conduct both wholesale and retail trade, some having branches in several of the groups. Almost every village has a store of some kind, and sometimes two or more. There are no local markets. Fruit and fish is usually hawked from door to door or sold from carts. From time to time the maximum wholesale and retail prices of certain goods are fixed by a Competent Authority appointed under the Prices of Goods and Services Act, 1947.

Professions

All those holding professional qualifications are employed either in the Government Service or by the various missions. Tongans with the necessary qualifications occupy specialist posts in the medical, lands and agricultural departments.

Co-operative Movement

There are no co-operative societies. The marketing of the main export products is undertaken by Government Boards.

Employment and Labour Supply

Relatively few Tongans are wage earners, most being peasant proprietors. Tongan labour is practically entirely unskilled. The standard of proficiency demanded of semi-skilled labour is not high. The two main sources of employment for labourers on a daily wage system are the Tonga Public Works Department and the Union Steamship Company's wharves at Nuku'alofa and Vava'u. The daily wage rates laid down by the competent authority are strictly complied with by both. Daily wage rates in 1950 ranged from 8s. 8d. for labourers up to 15s. for skilled workers. All work on Sundays, Christmas Day, Good Friday and other public holidays is paid for at overtime rates.

The migration of labour both into and out of Tonga is discouraged. Where Tongans have been allowed to take up employment overseas, employers have been required to enter into an agreement with the Government of Tonga providing for repatriation on completion of the contract. (See also section on migration—page 116.)

Fuel and Power

There are no indigenous sources of fuel and power. A modern electric generating plant, the first of its kind in Tonga, was completed at Nuku'alofa in 1951. The power station consists of three 110 H.P. diesel engines each generating 69 kilowatts, and one 100 H.P. diesel engine generating 65 kilowatts. Costs of light and power are high, 1s. per unit and 6d. per unit respectively. There were 245 consumers in 1951. The usual method of lighting elsewhere in Tonga is by benzine or kerosene lamps.

No coal is imported. Coke for use by blacksmiths is imported in small quantities from Australia and New Zealand. Cooking is done on wood fuel stoves.

Water Supplies

Although there are ample supplies of well water there is no pumping machinery or reservoir. Any project for piped water supplies must depend on wells. Many of the existing village wells have become polluted. The Government has provided communal concrete tanks in all the main settlements, but no satisfactory method of distributing water from these tanks has yet been found. The system depends on the existence of adequate catchment in the vicinity—usually a large roof. The use of tanks by householders, where they have an adequate catchment system, is being encouraged by advancing funds for the building of concrete cisterns.

III. FINANCE AND TRADE

Public Finance

Revenue and expenditure in respect of the financial years 1928-29 to 1950-52 are as follows :—

REVENUE AND EXPENDITURE
1928-29—1951-52

*Year**	*Revenue*	*Expenditure*	*Surplus*	*Deficit*
	£T	£T	£T	£T
1928-29	86,626	83,208	3,418	—
1929-30	89,584	85,441	4,143	—
1930-31	70,662	78,500	—	7,838
1931-32	40,833	47,757	—	6,924
1932-33	46,589	45,212	1,377	—
1933-34	64,072	60,347	3,725	—
1934-35	54,743	64,620	—	9,877
1935-36	66,659	49,903	16,756	—
1936-37	73,471	55,937	17,534	—
1937-38	69,241	62,742	6,499	—
1938-39	60,441	69,612	—	9,171
1939-40	56,867	69,687	—	12,820
1940-41	60,819	72,211	—	11,392
1941-42	73,876	91,624	—	17,748
1942-43	116,180	99,375	16,805	—
1943-44	141,355	110,355	31,000	—
1944-45	140,334	106,997	33,337	—
1945-46	136,014	113,074	22,940	—
1946-47	159,256	107,907	51,349	—
1947-48	251,095	157,264	93,831	—
1948-49	246,895	206,186	40,709	—
1949-50	401,472	287,275	114,197	—
1950-51	344,550	313,786	30,764	—
1951-52†	373,149	391,668	—	18,519

* Year ends June 30th. † Estimate.

The large increase in revenue over expenditure in respect of the financial year 1947-48 was largely due to the increase in the export tax on copra, which was doubled in September, 1947, and also to a large increase in the revenue from customs duties resulting from the steadily increasing flow of consumer goods, which had been in short supply for so many years. The exceptionally large increase in the surplus in 1949-50 was largely due to increased customs receipts. Shipping difficulties caused a drop in receipts 1950-51.

A detailed breakdown of revenue and expenditure in recent years is shown below :—

REVENUE 1947-48 TO 1950-51

	1947-8	1948-9	1949-50	1950-51
	£T	£T	£T	£T
Native Taxes	16,913	15,127	15,370	16,152
Customs	163,694	149,870	261,250	207,671
Port and Wharfage dues	3,624	3,280	N.A.*	N.A.*
Licences and Internal Revenue	6,608	7,258	8,214	24,290
Fees of Court and Payments for Specific Services	22,457	20,654	20,908	21,817
Post Office	3,841	2,902	10,591	9,184
Rents and Interest ..	12,565	15,838	26,310	22,812
Miscellaneous ..	21,393	31,966	58,829	42,624
	251,095	246,895	401,472	344,550

* Included in Miscellaneous.

EXPENDITURE 1947-48 TO 1950-51

	1947-8	1948-9	1949-50	1950-51*
	£T	£T	£T	£T
H.M. The Queen of Tonga	5,069	5,495	6,107	9,250
Legislative Assembly ..	1,130	1,177	2,269	2,660
Premier	6,760	6,723	8,180	15,310
Governors	1,201	1,292	1,380	2,090
Audit	1,102	1,424	1,340	2,375
Treasury	2,306	3,626	2,972	9,500
Customs and Post Offices	5,451	7,134	8,341	9,607
Lands	739	780	958	5,760
Survey	1,699	1,953	2,127	
Justice	3,532	2,912	3,603	5,360
Police	6,664	6,750	7,650	14,275
Gaols	1,479	1,848	2,178	2,775
Education	12,233	14,697	14,743	24,580
Pensions	5,368	6,842	7,885	9,600
Printing Office ..	2,409	2,346	3,076	4,590
Despatch Vessel ..	5,191	7,565	7,029	8,065
Medical	15,450	20,846	23,812	29,000
Agriculture	2,436	2,887	6,565	6,360
Telegraphs and Telephones	3,755	4,602	6,910	25,110
Miscellaneous ..	41,138	46,784	85,202	36,460
Works	4,337	6,815	7,833	9,660
Public Works Annually recurrent	12,991	22,220	25,597	24,880
Public Works Extraordinary and non-recurrent	14,824	29,459	46.450	40,530
Public Works from Surplus funds ..	—	—	5,065	—
	157,264	206,186	287,275	298,697

* Revised estimates. Actual not available.

The main sources of revenue are customs duties. The estimates for 1950/51 and 1951/52 show the following expected yield from *import* and *export* duties and *port* and *service tax* :

Customs Receipts	1950-51 (revised estimate)	1951-52 estimate
	£T	£T
Import Dues	113,500	125,000
Export Dues	66,000	65,000
Port and Service Tax ..	28,700	31,500
	208,200	221,500

There has been no *income tax* in the past, but provision was made for this for the first time in the 1950-51 estimates. Estimated yield for 1951-52 was £30,000. A *poll tax* of 32s. a year is payable by every male Tongan of 16 years and over in consideration for which free education and medical benefits are given. Exemptions are given on grounds of old age and sickness.

A *commission* of 5 per cent used to be charged on all remittances overseas, as a means of taxing business profits, but this was discontinued with the introduction of income tax. The estimated yield was £31,000 in 1949-50.

The Kingdom's accumulated surplus balances at the end of the financial year 1950/51 amounted to £522,320. There is no public debt and no major commitments or guarantees except as security for Treasury notes issued and for Savings Bank purposes. The assets and liabilities of Tonga as at 30th June, 1950, were :—

STATEMENT OF ASSETS AND LIABILITIES 30th JUNE, 1950

LIABILITIES		£	s.	d.
Sundry Deposits		312,001	18	5
Traders' Deposits		52,220	7	10
Suspense		4,002	14	8
Copra Venture		127,912	15	3
Remittances		2,398	15	10
Agencies		9,304	8	0
Revenue Balance ..	£517,885 3 11			
Less : Depreciation in Investments	3,155 6 0			
		514,729	17	11
		1,022,570	17	11

ASSETS	£	s.	d.
Cash in Hand and Bank	27,947	3	2
Investments	640,600	10	9
Joint Colonial Fund	203,000	0	0
Advances :			
Nuku'alofa Power Board	40,394	0	10
Government Stores	'54,827	6	0
Personal	2,816	13	10
Various	1,985	10	9
Exchange	50,999	12	7
	1,022,570	17	11

Currency and Banking

There are no commercial banks trading in Tonga ; the Treasury Department acts as banker for the purpose of the safe-keeping of money for merchants and traders and the remitting of money abroad for the purchase of goods, etc.

There is a Government Savings Bank. Deposits are limited to £4,000, but in the case of churches or charitable organisations Privy Council may allow a specified larger amount.

Tongan currency is linked with Australian currency. £T125=£ST.100. Tongan Government Treasury Notes, printed in England in denominations of 4s., 10s., £1 and £5, are used locally. Currency notes issued in New Zealand, Australia, the United Kingdom and the United States are not legal tender in Tonga, but are generally accepted from visitors and can, of course, be changed at the Treasury. United Kingdom and Australian coin is legal tender in Tonga.

The value of Tongan Government Treasury Notes in circulation at the end of 1946 was £T85,690, and had risen at 31st December, 1951, to £T175,683.

In addition to the principal office of both Treasury and Savings Bank at Nuku'alofa, Sub-Treasuries and Savings Bank Branches are located throughout the Kingdom at Ha'apai, Vava'u and Niuatoputapu.

The considerable growth of the Savings Bank since the end of 1942 is shown below :—

NUMBER OF DEPOSITORS AND TOTAL DEPOSITS AT SAVINGS BANK 1942-51

	Total number of depositors at the end of each year	*Total amount standing to the credit of depositors at the end of each year*
		£T
1942	1,842	58,866
1943	2,598	86,821
1944	2,778	105,985
1945	2,972	100,748
1946	3,327	113,335
1947	4,425	134,831
1948	4,908	151,976
1949	5,388	165,377
1950	5,808	191,341
1951	6,134	181,611

Cost of Living

There are no indices of the cost of living or of retail prices. Practically all Tongans are in a position to provide a substantial proportion of their food requirements by planting on their own tax allotments. The increase in the cost of living over the pre-war level has been considerable, but to offset this the price paid to the producers of copra—and practically all Tongans produce copra—advanced from under £T4 a ton pre-war to £T46. 10. 0 a ton for first-grade copra at the end of 1949, £T44 in 1950 and £T50 in 1951.

Balance of Trade

The following table shows comparative figures, for the period 1938 to 1951, of the external trade of Tonga :—

BALANCE OF TRADE 1938-51

	Total value of imports	*Total value of exports*	*Excess of imports over exports*	*Excess of exports over imports*
	£T	£T	£T	£T
1938	83,026	86,196	—	3,170
1939	79,695	79,820	—	125
1940	76,360	62,275	14,085	—
1941	71,942	56,459	15,483	—
1942	144,110	120,388	23,722	—
1943	264,920	169,638	95,282	—
1944	264,997	263,554	1,443	—
1945	222,399	202,074	20,325	—
1946	273,125	230,117	43,008	—
1947	391,240	748,109	—	356,869
1948	688,444	842,128	—	153,684
1949	685,169	881,930	—	196,761
1950	880,817	1,090,842	—	210,025
1951	889,373	1,388,564	—	499,191

The adverse trade balances for the years 1940 to 1946 were largely due to the war and to the shortage of shipping. Tonga has had a particularly favourable balance of visible trade since 1947 as a result of good prices for copra and it seems unlikely that invisible imports were very large. Copra is the principal export representing 94 per cent of total exports in 1950. Bananas accounted for another five per cent.

The principal imports and exports of the colony are shown in the following tables :—

PRINCIPAL IMPORTS INTO TONGA 1938 AND 1950

	1938		1950	
Commodity	*Value (£T) c.i.f.*	*Principal Sources of Production (£T'000)*	*(Value (£T) c.i.f.*	*Principal Sources of Production (£T'000)*
Drapery				
Textiles	10,202	Japan 6·5 ; U.K. 2·4	111,878	U.K. 89·0 ; India 11·9 ; Japan 7·5
Other			30,462	U.K. 12·6 ; H.K. 5·6 ; Aus. 4·7 ; Fiji 4·7
Preserved meats	7,409	N.Z. 6·6	57,898	N.Z. 51·6 ; Aus. 6·2
Butter	1,071	N.Z. 1·0	7,960	N.Z. 7·8
Biscuits	1,524	Fiji 1·0 ; Aus. 0·4	18,292	Fiji 16·5
Flour	7,628	Aus. 7·5	56,686	Aus. 56·6
Sugar	2,754	N.Z. 2·2	22,457	Fiji 9·3 ; N.Z. 8·2 ; Aus. 4·9
Motor Vehicles and Parts	1,801	U.S. ·89 ; U.K. ·77	59,198	U.K. 54·7 ; U.S.A. 2·4
Machinery and Parts	863	U.K. ·68	6,672	U.K. 2·3 ; Aus. 1·9 ; N.Z. 1·2
Hardware	2,381	U.K. 1·2	16,091	U.K. 10·8 ; Aus. 2·5 ; N.Z. 1·5
Paints and Putties	864	U.K. ·5 ; Aus. ·3	6,488	Aus. 4·6 ; U.K. 1·2
Cement	351	U.K. ·3	15,058	Aus. 5·7 ; U.S.A. 5·3 ; U.K. 4·0
Benzene	1,877	U.S. 1·8	32,595	Indonesia 19·7 ; Iran 10·9 ; U.S.A. 1·4
Boats and launches	—	—	38,477	Fiji 32·6 ; Aus. 5·8
Timber (diesel)	1,683	Canada 1·4	3,034	U.S.A. 2·5
(rough)	1,723	Canada 1·4	1,962	Aus. 1·6
Cigarettes	425	U.K. ·27 ; Aus. ·1	13,169	U.K. 10·6 ; N.Z. 1·8
Tobacco	1,861	Aus. 1·8	19,149	N.Z. 8·9 ; Aus. 8·8
Soap	1,988	Fiji 1·3 ; Aus. ·3	14,339	N.Z. 12·7 ; Aus. 1·1
Bags	5,305	India 5·3	6,375	India 5·6

Quantities of imports are not available.

Of total exports copra and bananas represented 96·6 per cent and 96·3 per cent in 1938 and 1950 respectively. All copra goes to the U.K. and all bananas to New Zealand. Minor exports in 1950 included 24 tons of fungus valued at £4,712, to Australia and New Zealand, 2,635 cases of pineapples (£2,153) to New Zealand and 17 drums of candlenuts (£102) mostly to New Zealand.

SOURCES OF IMPORTS 1938, 1948, AND 1950 (PER CENT)

		New Zealand	*U.K.*	*Australia*	*Fiji*	*Canada*	*U.S.*	*Japan*	*India*	*Hong Kong*	*Indonesia*	*Other*
1938	By consignment ..	29	12	33	6	6	4	7	—	—	—	3
	By origin ..	20	19	24	3	5	8	9	7	—	—	5
1948	By consignment ..	35	27	23	7	6	1	—	—	1	—	—
	By origin	24	32	20	4	8	5	—	2	1	—	4
1950	By consignment ..	28	27	25	14	—	4	—	—	—	—	2
	By origin	19	33	21	7	—	7	—	2	1	5	5

The proportion of imports from different countries varies according to whether source is taken as country of consignment or country of origin.

IV. DEVELOPMENT

Government Activities and Plans

The Kingdom of Tonga does not possess an itemised development plan, but all major extraordinary and non-recurrent works are listed under a special heading in the annual budget. All approved works not started or not finished within the year are either deleted or carried over to the next year's budget.

The 1949-50 budget listed under this heading works totalling the sum of £T430,395, but works only to the value of £T98,663 of this total were listed for commencement or completion during this period and it was not expected that this amount would be spent due to supply difficulties. In fact only £T39,367 was spent in 1949-50.

Some of the more important projects with the estimated total cost are as follows :—

	£T
Government Stores Buildings	7,100
Hospital Buildings	17,610
New Magistrates Court..	4,000
Replacement of Public Buildings ..	30,000
New Government Quarters for Officers	16,200
School Buildings..	14,565
Telegraphs and Telephones Buildings..	5,190
Cement Cisterns	4,000
New Roads	13,000
Reconstruction of Wharves	155,000
New Tar Roads for Tongatapu ..	25,000
New Administration Offices at Nuku'alofa	20,000
Water supply for Nuku'alofa	60,000
New Hospital Dental Clinic	12,000

The high prices received for copra in recent years have enabled the government to build up a surplus which is now being used to carry out works previously postponed, such as the building of the new hospital at Vava'u, government schools, new administrative buildings at Nuka'alofa, quarters for government officials and the improvement of wharves and ports.

BRITISH SOLOMON ISLANDS PROTECTORATE

Note.—Currency used throughout this chapter is Australian currency unless otherwise stated.

I. GENERAL BACKGROUND

Geographical Features

The British Solomon Islands Protectorate is comprised of a scattered archipelago, running diagonally south-east from Bougainville towards the Banks Islands of the New Hebrides, and lying outside the present main shipping and air routes. The total area of the Protectorate is approximately 11,700 square miles. The Group, comprising eight main islands and numerous small ones, lies between the parallel of 5° and 12° 3″ South Latitude and the meridian of 155° and 170° East Longitude. The islands are of volcanic origin, but soil fertility is not generally high. The mountain ranges of the main islands form a broken tangle of razor-backed ridges and spurs intersected by steep narrow valleys. Most of the islands are covered in tropical rain forest.

Guadalcanal contains the capital Honiara. This island although mountainous contains the most extensive areas of alluvial grass plain in the Group. The most fertile areas are on the N.E. coast where there are a number of coconut plantations. In the *Russell Islands*, lying to the N.W. of Guadalcanal, are located the copra plantations of the overseas companies. Copra is also produced on the islands of *San Cristoval* and *Isabel*. Malaita, the most populous island in the Group, formerly provided labour for the plantations on other islands but produced little copra. Stands of Kauri pine occur in *Vanikoro* in the Santa Cruz Group.

The temperature at sea level varies from an occasional maximum of about 92° F. to a minimum night temperature of 73° F. At 6,000 feet altitude in Guadalcanal a temperature of 49° F. has been recorded.

The rainfall is heavy, although it varies considerably from month to month and year to year. The average at Tulagi is approximately 120 inches annually and about 125 inches in the Western Solomons. There is an almost complete absence of a wet and dry zone in the larger islands.

The direction of the prevailing wind is from the south-east from April to the beginning of November. From November to the end of March, calms with an occasional north-wester sometimes continue for three weeks at a time.

There are several lakes, the largest, which is about 20 miles long, being on Rennell Island. The rivers are mainly narrow and unnavigable except by canoes. They rise in the uplands of the islands and are subject to alternate flooding and drought, a feature which makes the construction of bridges a matter of some difficulty.

The Protectorate is subject to occasional earthquakes.

Population

The population of the Protectorate in 1951 is estimated to be approximately 100,000, comprising some 95,000 Melanesians, 4,500 Polynesians, nearly 400 Europeans, almost 200 Chinese, and ten other Asiatics.

The last full census was taken in 1931 when the population numbered 94,000 including 89,550 Melanesians and 3,800 Polynesians. Thus the population of the Islands appears to be increasing, but at quite a moderate rate.

The following figures show the approximate population density in various islands of the Protectorate.

POPULATION DENSITY

	Area Square miles	*Population (approx.)*	*Population per square mile (approx.)*
Choiseul	1,500	4,500	3
Guadalcanal	2,500	14,000	5
Malaita	2,000	40,000	20
San Cristoval	1,740	6,700	3
Ysabel	1,800	4,800	2
New Georgia Group ..	1,240	4,400	3
Vella Lavella	1,275	3,000	2
Florida	710	5,300	7
Santa Cruz	500	5,000	10
Shortlands	450	1,300	3
Tikopia and Anuta ..	4	1,600	400

The majority of the people belong to the Melanesian race, deriving from Papuan stock, but mixed with immigrant strains. The Melanesians have occupied the larger islands in the area ; nearly half of them live on Malaita. About another 40,000 are dispersed in the diverging lines of islands that form two chains to the north-west. There are about 5,000 others who occupy the Santa Cruz Group. The Polynesians prefer, as do all of their race, to live on small islands and atolls.

The movement of native peoples out of the Protectorate and of alien races into the Protectorate is very strictly controlled. The only natives at present who have contact with external islands are those selected for missionary or government courses in Fiji, and members of crews of Protectorate vessels visiting other Groups. The immigration of alien races into the Protectorate is very closely checked by Government. There are very small numbers of Chinese, Euranesians and Fijians in the Protectorate, mainly engaged in construction work for the new capital, in which case they are under contract, or if engaged in private trading, under licence.

The great majority of the population are engaged in the maintenance of their own homes and production of food for their own consumption. Nearly all are landowners or members of a land-owning group. There is no basic economic necessity for any native to work on a plantation and in the immediate post-war period there was practically no employment of the indigenous population on copra plantations. This was a result of the dereliction of plantations during the war, the slow return of planters to the Protectorate, the fact that most of the potential labour force was enrolled in the Labour Corps, and the unsettled political state of the chief source of labour supply, the island of Malaita.

The copra industry is the main source of employment for native labour in the Protectorate. The Government construction departments employ a number of labourers, largely unskilled, and a small number of labourers are employed as crews on the various Government, private, commercial and mission ships that ply between the islands.

The number of females employed in plantation labour is, by comparison, small ; they are recruited with their husbands and are largely employed on work of a light nature.

Social Amenities

Education

With two exceptions all the schools in the Protectorate are mission-owned and controlled. They are mostly village schools, of a primary educational standard with a religious background and are staffed by native teachers. There are, however, a number of district schools of a slightly higher educational standard staffed by some European teachers, and five regional schools which specialise in the training of mission teachers.

A typical village school in the Protectorate would have an attendance of about 20-30 pupils of an age of about seven to 14 years, a syllabus including English, arithmetic and religious teaching and possibly some basic education in personal cleanliness and health.

The Government established a native administration experimental school at Auki, Malaita in 1950 with provision for the training of artisans of many types, including carpenters, welders and boat builders. There are now 24 pupils, and it is hoped to increase the number later. The course takes three years, a fee of £A5 per annum being charged for tuition.

Economic conditions are such that, at present, financial provision cannot be made for any large-scale Government educational scheme, independent of the various missions.

Several promising medical students have been trained at the Fiji Medical School with a view to returning to the Protectorate and taking over the duties of Medical Practitioners.

Health

The most widespread diseases are malaria, yaws and tuberculosis, the latter presenting the most serious health problem. Hookworm is prevalent but not usually of a serious nature. There is very little resistance to alien diseases such as measles and whooping cough.

The main Protectorate hospital (120 beds), equipped for major surgery and laboratory and radiological investigation, is at Honiara ; there are three district hospitals at Auki and Gizo and at Kira Kira (with 160 beds altogether), and smaller rural hospitals at Tae (Malaita), Tataba (Ysabel) and Lowa (Santa Cruz). At the end of 1950 there were, in addition to the senior medical officer, four medical officers and eleven assistant medical practitioners stationed in various parts of the Protectorate. Medical work is also performed by the various missions.

It is noticeable that when natives take up Government employment and are provided with rations, they almost invariably show a marked physical improvement within a comparatively short space of time, and it is probable that with better diet and medical care the general stamina of the people could be improved and their resistance to disease increased.

Housing

Houses are constructed of native building materials, i.e., undressed timber, plaited bamboo and ivory leaf thatch, or of sawn timber and corrugated iron. There are no landlords in the native community, the head of the household owning his own village dwelling.

Village housing standards are approximately similar on the larger islands of the Group, where the population per square mile is, with the exception of North Malaita, very sparse. There is sufficient land available for gardens, and each native house stands in its own grounds. In some small salt-water islands, such as Auki, and the Tae Lagoon in Malaita, the population is extremely dense—on Sulefou, for instance, a very small island, there are over 700 persons. Here, apart from the cemetery and the parade ground, there is no open space.

Those natives engaged in plantation work or as labourers in Government stations are housed in communal huts, which are subject to periodic inspection. Persons engaged as clerks and some other special occupations are housed in specially constructed dwellings, for which they pay rent at 10 per cent of salary.

Social Security

There is no unemployment as the term is understood in highly organised communities, since the native workers do not depend on employment for their living. Their own tribal system provides for the care of the aged and indigent.

Friendly societies do not exist. A Regulation providing for the establishment of a Government Savings Bank has been recently enacted.

Political Structure

The Protectorate is administered by the High Commissioner for the Western Pacific, who also used to be Governor of Fiji, with headquarters in Suva, Fiji. At present the High Commissioner's representative in the Protectorate is the Resident Commissioner, with headquarters at Honiara, who is assisted by an Advisory Council, the composition of which was altered in 1950. Formerly consisting of three official and three nominated non-official members, the Council now comprises four official members, five non-native non-official members, and five native non-official members.

There are four administrative districts, each in charge of a District Commissioner assisted by junior administrative officers and a native clerical staff. Each district is further divided into sub-districts under Native Headmen, nominated by the Resident Commissioner.

Since the war administrative effort has been concerned with expanding this organisation of sub-districts into a system of local authorities. These authorities consist of a native Council and Court, both presided over by the Headman, and drawing their revenues mainly from native Poll Tax.

The Native Councils have wide powers to decide matters of local interest and points of custom by majority decision subject to the High Commissioner's approval. Council employees are servants of the Council—paid, hired and discharged by it, on approved resolution. Native Councils in some areas have been suspended as a result of the activities of the Marching Rule Movement.

The Native Courts may try offences against native custom and against certain sections of the Queen's Regulations coming within their competence. They can impose sentences of up to six months' imprisonment. Their decisions are subject to revision by and appeal to a District Officer.

Principal Economic Legislation

General

There are regulations with respect to company registration, registration of business names, double taxation and the imposition of taxes and duties. (For details of taxation see section on Finance, page 130.)

The Copra Regulation of 1948 regulates the manufacture, purchase and sale of coconut products in the Protectorate, and the Copra (Export Control) Order of 1948 establishes the Copra Board as the authority controlling the export of copra. The Copra Board Regulation (1950) is also concerned with the structure and powers of the Board.

Trade Tariffs

The main features of the Customs Tariff (1952) are :—

IMPORT DUTIES

	British Preferential Rate	*General Rate*
Bags and sacks	Free	17½%
Biscuits	,,	,,
Cement	,,	,,
Cigarettes, per 1,000 ..	£1	£1 6 8
*Goods not otherwise enumerated	17½%	35%
Machinery	Free	12½%
Meat (Preserved)	17½	35%
Petrol	3d. gal.	3d. gal.
Rice, per ton	Free	£2
Spirits, per proof gallon ..	£1 16 0	£2 11 0
Tobacco, cut, per lb. ..	7/6	8/9
plug—cake, per lb.	2/-	2/4½
stick—leaf ..	2/4½	2/9
Timber	17½%	35%
Motor cars, trucks, parts ..	17½	25%

* Excluding some goods specified in Tariff but not shown above.

EXCISE, STAMP DUTIES, LICENCES

Bill of Sale	£0 10 0
Power of Attorney	10 0
Arms Licence	10 0
Publican's Licence	25 0 0
Retail Liquor Licence	15 0 0

EXPORT DUTY

Copra	15% *ad valorem* f.o.b.

Labour

Under the *Labour Regulations* of 1947 as amended in 1948, and rules made under them, conditions are laid down with respect to rations, minimum rates of pay, length of task, nature of contract, employment of young persons, etc., for native employees, including those employed under contract. *The Task Rules* (1949) provide that a copra cutter's task shall not exceed 600 lb. per 9-hour day or 450 lb. if he has to collect nuts. (For further information see Employment and Labour, page 128.)

The Trade Unions and Trade Disputes Regulation was approved in 1946, but no trade unions have yet been formed.

Land Tenure

For some time the necessity for determining the ownership of large areas of unused land has been apparent. The Land Regulation of 1914 provides for the alienation of native land in the form of leasehold and ensures that all land not actually alienated is owned by the natives. The land area of the Protectorate is taken as 11,700 sq. miles, distributed approximately as follows :—

Freehold. 290 sq. miles owned by non-indigenous inhabitants ; 11,057 sq. miles owned communally by the inhabitants.

Crown Land. 71 sq. miles (mostly leased to non-indigenous inhabitants).

Native Lease. 8 sq. miles native land leased to non-indigenous inhabitants.

Occupation Licences. 274 sq. miles of waste land is leased by the Crown to non-indigenous inhabitants.

Communications and Transport

External

Shipping

A regular service between Sydney and Honiara is maintained by Messrs. Burns, Philp & Co., while occasional visits are paid by other vessels such as ships under charter to the United Kingdom Ministry of Food.

The harbour at Point Cruz, the port for Honiara, is very open, and as there are no wharf facilities for large ships, the latter have to anchor in the open roadstead. The harbour at Tulagi provides excellent shelter for all vessels, while there are many small harbours throughout the Group which are suitable for small craft.

Air Services

Air communications between Sydney and the Protectorate are maintained by Quantas Airways, which run a fortnightly service from Sydney to Honiara via New Guinea. There are three wartime airfields now in use, and a small civil airfield was established at Kukum in 1950 near Honiara.

Internal

Water Transport

Transport within the Protectorate is mainly carried on by Government owned and operated craft. These vessels collect copra, distribute freight from Honiara and transport Government staff and other passengers. The Government fleet consisted in 1950 of two 66 ft. vessels, three 60 ft. vessels, four 40 ft. vessels and two vessels used for medical work. The largest Government vessel (200 tons) is used exclusively in connection with the Trade Scheme.

Craft are also owned by the missions and the larger plantation owners, the latter using them for copra collection, transhipment and recruiting of labour.

Roads

Road traffic is limited to the small stretches of earth road in the vicinity of some stations. There is about 20 miles of all-weather road between Honiara and the Government farm at Ilu. Progress on the Auki—Malu'u road has been slow owing to shortage of labour. There are no railways.

Postal and Telecommunications

There is a General Post Office at Honiara and a number of offices and sub-offices on other islands. The telegraph office is at Honiara. There are a number of wireless stations in other districts through which telegrams can be despatched.

All freight comes by sea while overseas mail is despatched by sea or air, air-mail taking approximately three weeks to reach the United Kingdom.

II. PRODUCTIVE ACTIVITIES

Agricultural Conditions and Methods

Most of the land belongs to the natives and where cultivated is used by them mostly for the growing of food crops. Of the 414,000 acres of alienated land only about 62,000 acres have been improved and this is practically entire under coconut plantations in the low-lying foreshores.

There are three main soil types : volcanic, mixed, and sedimentary. While the soil is apparently fertile, supporting a mass of natural vegetation, the removal of the latter under tropical conditions can cause ecological instability.

Native cultivation takes the form of clearing by felling and burning and then planting one or two crops, usually yams and taro. If the land will not support a further crop such as sweet potatoes, the cultivator then shifts to another area and leaves the plot to return to bush. The natives adapt their methods to the type of crop, planting yams in hillocks to allow drainage, while mulching and trenching taro to conserve moisture. Planting is often integrated with the seasonal cycle by forecasts based on changes of wind, flights of migrant birds, etc.

The only "commercial" crop, copra, was produced practically entirely on European plantations before the war, largely with labour drawn from Malaita but a number of plantations are now operated by natives on a share basis. In the Western Solomons the bulk of the copra is now produced by native growers.

The Protectorate has a small Agricultural Department and there are three Government experimental farms, two at Ilu and Kukum on Guadalcanal and one at Aligegeo on Malaita, and a small agricultural station at Gizo. The main functions of these farms are to raise the standard of local agriculture by research and education and the sale of proved strains to native cultivators. Emphasis is placed on the improvement of native food crops but experiments are also proceeding on possible export crops.

Local Food Crops

Taro is the staple food crop, followed by yams (the true yam and Pana). Crops which the Government farms have grown experimentally include rice, corn, sesame, peanuts, and tobacco. While many of these have been grown successfully on the Government farms, no great success has been achieved in their cultivation under village conditions where supervision is not available.

Cash Crop

Copra is virtually the only cash crop and has been the islands' only important export since the early years of the century. It is estimated that in 1950 there were approximately 40,000 acres of coconut plantations and another 24,000 acres of plantations not being worked owing to shortage of labour and the time taken to rehabilitate war-damaged and overgrown plantations. Present productive capacity based on numbers of trees has been put at 15,000 tons, but this may be an over-estimate owing to the spread of a coconut pest. Exports of copra for a series of years are shown below :—

EXPORTS OF COPRA

Year	*Quantity* *tons*	*Value* *£A (f.o.b.)*
1938/9	22,555	114,235
1939/40	21,944	149,367
1948	3,048	171,450
1949	8,390	503,400
1950	10,073	610,676

In the past the bulk of the copra has been produced by overseas companies, the individual European producer and the Solomon Islander producing very little on their own account. Since the war, however, there has been an increase in the participation of natives as producers. Many of the smaller European plantation owners and companies were reluctant to return to their damaged plantations after the war and rehabilitation was achieved by handing these over to groups of natives who worked them by agreement with the absentee owners on a share basis, two-thirds of the profit going to the native operators and one-third to the owner in most cases. The system has proved a success and may well become a permanent feature of the industry. In addition two of the larger plantation owners have sub-let groups of plantations to Europeans who supervise the work of groups of natives operating various plantations on a profit-sharing basis. Under profit-sharing schemes the owner of the plantation usually collects the copra, and supplies bags, driers, knives and other equipment.

The Agricultural Department is trying to devise a simple kiln which could be owned individually or by villages with the object of improving the standard of native copra. The primitive nature of the huts or sheds used for smoke-drying often results in a very low-grade product.

There are three large overseas companies with plantations in the Protectorate, one of which no longer works its plantations, and 14 non-indigenous independent planters (compared with 30 pre-war). The Government has assisted the latter by giving them interest-free loans for rehabilitation, the total amounting to £47,910 in 1949.

The chief obstacle to rehabilitation and expansion of copra production has been the shortage of labour, though the situation was improving in 1950. Before the war plantation labour was largely recruited from Malaita and Guadalcanal, usually under indenture, but recruiting has been difficult since the war owing partly to the activities of the Marching Rule movement in Malaita. There is also the tendency observed above for natives to produce on their own account rather than work for wages.

All copra is sold to the United Kingdom Ministry of Food under a long-term contract extending from 1949-1957 at prices agreed annually, with provision for a maximum rise or fall of approximately 10 per cent on the previous year's price. By agreement, however, a total of 4,200 tons of copra per annum is shipped at the same price to Australia to provide back-loading for vessels from Australia. A Copra Board comprising officials and private persons associated with the industry including native producers was set up in 1948 to promote efficient marketing and shipment. All copra for export is purchased by the Board or its agents. The Government Trade Scheme and the Fairymead Sugar Company act as buying agents, all copra being collected and brought to the main ports for shipment.

The Copra Board Regulations of 1950 (based on the Fiji ordinance) placed the Board on a proper legal basis as a corporate body and defined its functions. The Board is the sole authority for exporting copra and must accept all copra of a specified grade offered to it at the determined price. The price paid by the Board must be as nearly as possible equivalent to the price received by the Board for copra sold by it after deducting all costs and expenses and allowance for tax.

The f.o.b. price paid by the Ministry of Food in 1949 was £A60, the ruling price at the main ports at the end of 1949 being £A45 10s. The difference between the two prices was made up of £9 export duty, £4 15s. agency fees and 15s. contingencies. The M.O.F. price was increased to £A60 12s. 6d. in 1950 and the price at ports to £A46.

The only price fixed by the Board is the price at which its agents purchase all marketable copra at the main ports (i.e., £45 10s. at the end of 1949). The average price paid by planters and traders for copra purchased by them was thought to have been between £30 and £35 in 1949, the difference between this price and the £45 10s. representing transport, shrinkage and handling charges. There is no copra price stabilisation fund.

Forestry

The majority of the country is covered with tropical rain forest, but there is relatively little timber of commercial value. In the Santa Cruz Group there is some Kauri pine, of which 1·1 m. super feet was exported in 1949 and 1·5 m. super feet in 1950, in the form of unsawn logs. As a result of a recently completed survey and of the recommendations contained in the report, a Forestry Department is to be set up to prevent further uncontrolled exploitation of forests and to combat the ill-effects of shifting cultivation. It is unlikely that the recommended silvicultural operations can be undertaken however owing to the shortage and high cost of local labour.

Fisheries

Fish forms an important part of the local inhabitants' diet. There is quite a substantial internal trade in fish, which is bartered at markets for taro and other agricultural products. There is no commercial fishing.

Amongst the more important types of fish eaten are bonito, mullet, flying fish, eels, grouper, schnapper, shark and ray. Pearl and clam shell are still widely used as ornament. Various methods of fishing are employed including hook and line (hooks being mostly of European make), fishtraps, nets, and in some areas bow and arrow. Trolling for bonito from canoe or boat is also widely practised. There is a small export of trochus shell—213 tons in 1949 and 143 tons in 1950.

Minerals

The first geological survey of the Protectorate was begun in 1950 and a party of visiting geologists also began exploratory work at the end of 1950. A number of minerals are known to exist including nickel, gold and manganese, brown coal, copper, iron pyrites and asbestos but it is not known in what quantities. Past attempts at exploitation have met with little success owing to lack of machinery, difficult terrain and the uncertain and untrained labour supply. In 1950 a Geological Department was set up.

Village Industries

There are no manufacturing industries. Village industries include the making of household articles, mats, baskets and tools, etc., mostly for use in the makers' own homes. Many of these articles, however, are being replaced by European articles, e.g., axes, bowls, clothing, etc., purchased from the trade store. The future of these crafts is therefore doubtful unless an outside market is created or aid given for their preservation.

Other Economic Activities

Distributive Trade

Wholesale and retail distribution is mainly, and the handling of exports is largely in the hands of the Government Trade Scheme, started during war-time to secure imports of incentive goods. Efforts to induce commercial firms to return to the Protectorate in 1946 and 1947 having failed it was decided to expand the Trade Scheme into an organisation capable of handling the whole distributive trade with the exception of goods for the plantations which are imported independently. The scheme handles all types of stores including Government stores and also acts as shipping and stevedore agency for all government vessels. Although it has a monopoly at present this is because no private firms can be induced to enter the field.

The scheme has a capital of £200,000, obtained entirely from profits, the initial grant from Her Majesty's Government having been repaid. The gross profit for the six months ending 30th September, 1950, was £36,069, net profit £17,895. Net assets were approximately £284,359 and were growing at the rate of nearly £50,000 per annum.

There are a number of small independent importers and exporters, both European and Chinese, some working in co-operation with the Trade Scheme. A policy of encouraging Solomon Islanders to enter the trading field has had some success in recent years.

There are no formal co-operative societies in the Protectorate, but there are some organisations run on semi-co-operative lines.

Professions

The only professional men are those in the employ of the Government and the Missions.

Employment and Labour

Local Employment

It is estimated that there are about 3,000 labourers of all kinds employed in the Protectorate now, compared with 3,500 pre-war. Most of this labour is unskilled, working either on the plantations or for the administration. Before the war there were some 2,000 labourers employed under indenture, mostly recruited from Malaita to work on plantations, but now there is only a very small percentage employed under any form of indenture.

The principal employers of labour apart from the administration are the Fairymead Sugar Company and Levers Pacific Plantations, Ltd., both of whose copra plantations are in the Russell Islands, the former at Yandina and the latter at Lingatu. There are in addition a number of small and medium sized plantations. There are over 1,000 employed on plantations excluding co-operative groups.

Owing to the demand for labour for the rehabilitation of plantations and the development of Honiara, and the reluctance of the indigenous people to work for existing wage rates, there was an acute shortage of labour in the Protectorate in 1948, but the position had eased by 1950. Most plantation labour is recruited under contract for one year, but government personnel are usually signed on for shorter periods. The basic rate of unskilled labour in 1950 was £2 per month, plus rations to the value of £3 and accommodation and medical care. Labourers under indenture usually receive only a proportion of their wages at the end of each month the balance being retained for final payment. Similarly plantation labourers working on a monthly basis receive part of their wages as final payment when they are due to return to their homes. Wage rates paid by the Government to employees in 1950 were :—

WAGE RATES OF GOVERNMENT EMPLOYEES, 1950

Unskilled Labourers ..	£5 0 0 per month (no rations)
Mechanics, Carpenters, Plumbers.	£5 5 0—£7 10 0 per month (no rations)
Drivers	£6 0 0—£10 0 0 per month (no rations)
Storemen	£15 0 0 per month (no rations)
Stevedores	5/- per day + rations when working, and 2/- per day + rations when not working

It is estimated that some five per cent of unskilled workers eventually become skilled. A few promising medical orderlies, clerks and engineers are sent to Fiji for training.

The maximum number of hours per day is nine with a two-hour break at midday. Overtime rates are payable for work on Saturday afternoon and Sunday. (For Labour Regs. see page 125.)

Migrant Labour

Both internal and external migration is controlled (see page 124). Virtually the only movement is an internal one between the islands, labour being traditionally recruited from Malaita for work on the other islands.

Fuel and Power

Coal is thought to exist in the Protectorate, but it is not known whether it exists in payable quantity.

There is a government electricity plant which supplies he township of Honiara and which comprised in 1949 two 75 kVA, two 35 kVA, one 30 kVA, and two 25 kVA diesel sets. In 1950 three extra second-hand plants were purchased, two 50 kVA and one 60 kVA.

A small hydro-electric plant is to be installed by the Mission Hospital at Fauabu in Malaita. Plans were considered for a plant for supplying Honiara and other centres, but it was decided that the cost of dams and of transmission would be too high.

Water Supplies

The supply of water to Honiara used to be pumped from bore holes and distributed through pipes but in 1949 water was obtained from a new dam based on permanent natural springs. In 1950 work was commenced on a new service reservoir of a capacity of 130,000 gallons. Villages are usually dependent on springs.

III. FINANCE AND TRADE

Public Finance

Between the wars the Protectorate received no financial aid from Her Majesty's Government and was able to maintain a bare minimum of administration with a revenue of under £70,000 per annum. The war brought insolvency and the Protectorate is now dependent on financial aid from Her Majesty's Government in the form of grants-in-aid and Colonial Development and Welfare grants for rehabilitation and normal administration. The main source of local revenue is customs duties.

Revenue and expenditure for a series of years were as follows (the financial year ran from April to March until the calendar year was adopted in 1949) :—

REVENUE AND EXPENDITURE OF THE BRITISH SOLOMON ISLANDS PROTECTORATE, 1942-3 TO 1952

	Normal Revenue	*Normal Expenditure*	*Total Expenditure*
	£A	£A	£A
1942-43	22,200	43,490	59,947
1943-44	27,547	53,781	108,886
1944-45	18,496	93,665	180,900
1945-46	20,852	117,119	275,080
1946-47	75,240	175,289	275,787
1947-48	49,670	297,432	425,973
1948-49	134,233	279,650	398,727
†1949	147,780	279,000	404,600
*1950	237,091	318,311	504,513
*1951	396,026	366,747	529,208
1952 (estimate)	480,508	540,814	783,286

* Revised estimate January–December.
† Revised estimate April–December.

The *revenue figures* represent local revenue and therefore exclude Grants-in-Aid, C.D. and W. grants, etc., from Her Majesty's Government. The Protectorate has been receiving Defence or Deficiency grants or Grants-in-Aid since 1943-44. Although Grants-in-Aid do not necessarily represent the difference between revenue and expenditure in a given year, they do over a period make up the balance between local revenue and total expenditure. Revenue and expenditure from the Trade Scheme usually included in the Budget figures from 1943-44 to 1948-49 have been excluded from the figures shown above, as have transfers from surplus balances.

Normal expenditure shown above excludes War and Rehabilitation expenditure, C.D. and W. expenditure and expenditure in connection with the Trade Scheme.

Total Expenditure includes all expenditure except Trade Scheme.

The pattern of revenue and expenditure in recent years is shown below :—

SOURCES OF REVENUE, 1947-50

Head of Revenue	*Actual* 1947-48	*Actual* 1948-49	*Revised Estimate* 1950
(*a*) *Ordinary Revenue*—	£A	£A	£A
I. Customs Duty	23,418	86,169	166,220
II. Direct Taxation	4,171	7,848	16,400
III. Licences and Fines Revenue	585	1,526	785
IV. Fees of Court or Office and receipts for, or in aid of, Specific Government Services	8,028	5,347	7,376
V. Posts and Telegraphs	5,310	7,730	6,310
VI. Miscellaneous Revenue from Government property	7,622	21,828	38,011
VII. Reimbursements	—	974	939
VIII. Miscellaneous	536	2,811	1,050
Total Ordinary Revenue	49,670	134,233	237,091
IX. (*b*) H.M.G. Grant-in-Aid to balance the budget of total expenditure and transfers from surplus balances	368,846	328,750	175,000 9,220
Total (*a*) and (*b*)	418,516	462,983	421,311
(*c*) Colonial Development and Welfare Grants	31,794	19,588	83,202
Total Revenue	450,310	482,571	504,513
(*d*) Trade Scheme	59,195	—	—
Grand Total	509,505	—	—

ANALYSIS OF EXPENDITURE, 1947-50

Head of Expenditure	*Actual* 1947-48	*Actual* 1948-49	*Revised Estimate* 1950
Part I. Expenses of Normal Administration	£A	£A	£A
Agriculture	10,810	14,173	15,382
Audit	541	910	1,670
District Administration	19,992	30,473	30,276
Education	2,215	1,141	3,053
Forestry	—	—	—
High Commissioner's Department	10,788	10,135	12,742
Judicial and Legal	3,132	3,082	3,906
Lands and Mines	3,701	4,652	5,345
Marine Transport	51,572	55,394	35,489
Medical	38,144	41,782	61,300
Miscellaneous	17,729	21,962	35,668
Pensions, Gratuities, etc.	12,880	12,659	12,201
Police and Prisons	19,539	31,893	34,701
Resident Commissioner's Dept.	6,035	7,725	11,214
Telegraph and Telephone	2,394	3,021	8,144
Treasury, Customs and Postal	7,657	12,638	16,244
Works	5,241	6,764	13,301
Works (annually recurrent)	74,765	15,719	17,075
Total Recurrent Expenditure	287,135	274,123	317,711
Extraordinary			
Works (Extraordinary)	10,297	5,527	600
TOTAL PART I	297,432	279,650	318,311
Part II. Special War and Rehabilitation Expenditure			
Shipping	33,482	12,544	10,000
Defence	8,932	2,902	10,300
Rehabilitation	1,753	3,101	—
Works (Reconstruction)	45,458	56,090	82,700
Supernumerary Personnel, etc.	—	2,936	—
TOTAL PART II	89,625	77,573	103,000
Part III. Colonial Development and Welfare Expenditure			
Colonial Development and Welfare Schemes	38,916	20,358	83,202
TOTAL PART III	38,916	20,358	83,202
SUMMARY			
Part I—Expenses of Normal Administration	297,432	279,650	318,311
Part II—Special War and Rehabilitation Expenditure	89,625	77,573	103,000
Part III—Colonial Development and Welfare Schemes	38,916	20,358	83,202
	425,973	377,581	504,513
Part IV—Trade Scheme	59,195	—	—
Part V—Arrears of Salary, Cost of Living Allowances and Salaries Division	—	21,146	—
GRAND TOTAL	485,168	398,727	504,513

The proceeds from *import duties*, *export duties* and various *direct taxes* were :—

YIELD FROM CUSTOMS DUTIES

	1948-49	1951 (*Approved estimate*)	1952 (*Estimate*)
	£A	£A	£A
*Import duties	55,240	16,000	24,000
*Export duty	30,845	125,977	140,000
Income Tax	5,572	12,000	12,000
Capitation Tax	250	500	500
Native Tax	n.a.	131,871	16,445

n.a. =not applicable. * For rates of duty see page 125.

The rate of *income tax* is 1s. 3d. in the £ increased by ·012d. for every £ chargeable income up to £5,000 and 6s. 3d. on every £ of chargeable income over £5,000. There is a surtax of 1s. 3d. per £ on chargeable personal incomes between £1,500 and £3,000, 2s. 6d. on incomes between £3,000-£5,000 and on a sliding scale rising to 10s. per £ on incomes in excess of £30,000. Deductions allowed are £150 for taxpayer, £250 for wife, £50 for each dependent child (plus £25 if under 18 and being educated at the taxpayer's expense) and £50 for other specified dependants. There are also estate duties ranging, on a sliding scale, from one to 40 per cent.

There is a *non-native capitation tax* of £2 per head each adult male.

Native tax is levied on each able-bodied male native and varies according to the economic capacity of the area ranging from 1s. to £1 per head per year. Married natives with a family to support pay half these rates.

Other taxes include the payment by an employer of labour under contract, of £2 per year in respect of each native employee.

Company Tax is charged at the following rates : Insurance Companies 9d. per £ of chargeable income, Shipping Companies 4½d. per £, and other companies 7½ per cent on all chargeable income.

The estimated assets and liabilities of the Protectorate at 31st December, 1951, were :—

STATEMENT OF ESTIMATED ASSETS AND LIABILITIES AS AT 31st DECEMBER, 1951

Liabilities	£A
Deposits	187,525
G.P.O. Australia	4,375
Funds—	
Vessels Insurance	21,170
„ Replacement	31,322
Taivo Natives Investments	200
General Revenue Balance	118,200
	£A.362,792

Assets	£A	£A
Treasury	1,000	
Sub Accountants	4,000	
C'th Bank of Australia, Honiara	175,000	
„ of N.Z. Suva	6,000	
High Commissioner	8,000	
Crown Agents	2,000	
Sydney „	4,000	
Suva „	1,500	
G.P.O., London	600	
Joint Colonial Fund	40,000	
		242,100
Investments		
Vessels Insurance Funds	21,170	
„ Replacement Fund	31,322	
Taivo Natives	200	
		52,692
Advances		68,000
		£A.362,792

The Protectorate has no public debt.

Currency and Banking

Australian currency is used. United Kingdom coins (but not notes) are legal tender.

In 1951 a branch of the Commonwealth Bank of Australia was opened in Honiara. A Savings Bank is projected, and it is hoped to encourage the natives to deposit in this bank some of the large sums made from the sale of copra which are at present lying idle. Planters are allowed credit against reasonable security at the Government Trade scheme store.

Private Investment

There is only one Company registered in the Protectorate : Kwan Cheong, a Chinese concern engaged in mixed trading. Other companies registered outside the Protectorate but with interests within it are :—

Levers Pacific Plantations Pty. Ltd.
Fairymead Sugar Co. Ltd.
Guadalcanal Trading Co.
W. R. Carpenter & Co. (Solomon Islands) Ltd.
Vanikoro Kauri Timber Co. Pty. Ltd.

Most of these companies have their head offices in Australia.

Cost of Living

A cost of living index for Europeans, based on the Fiji index, stood at 258 at the beginning of 1949 and 295 by the end of 1950 (1939=100). An index for native staff employed by the Government (100 in January, 1947) had risen to 142 at the beginning of 1949 then fell sharply as a result of a reduction of profit margins by the Trade Scheme but rose again to 137 at the end of 1950.

Balance of Trade

Imports and exports for a series of years have been :—

EXTERNAL TRADE, 1938-50

	Exports	*Imports*
	£A	£A
1938-9 (1st April—31st March)†	144,295	184,636
1939-40 (1st April—31st March)†	183,990	186,857
1948	197,395	407,257
1949	705,596	526,488
1950	857,980*	618,882

* Excluding value of timber exports (not yet available).
† Excluding bullion and specie.

The sources of imports were :—

SOURCES OF IMPORTS

	1938-39	1949	1950
	%	%	%
Australia	44·7	56·6	58·8
Burma	9·3	—	—
United Kingdom ..	14·9	23·1	15·9
United States	8·9	3·8	8·9
New Zealand	·5	4·0	2·3
India	5·3	1·7	3·1
Canada	2·3	·5	·4
Hong Kong	1·9	—	2·7
Republic of Indonesia ..	4·3	—	2·2
Other countries	7·9	10·3	5·7

The greater part of total exports consists of copra, minor exports being mainly trochus shell, timber and, in recent years, sales of U.S. war equipment, viz. :—

PRINCIPAL IMPORTS 1938-39, 1949 AND 1950

Item		1938-9		1949		1950	
		Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
			£A		£A		£A
Rice..	tons	1,403	17,634	1,033	44,980	1,359	61,163
Biscuits	lb.	311,550	5,732	279,987	11,299	519,519	21,353
Meat	lb.	284,904	8,700	414,227	39,068	466,243	42,896
Flour	tons	348	3,211	137	5,315	244	10,880
Sugar	tons	134	2,371	203	7,858	173	8,925
Tea	lb.	16,107	1,099	9,119	2,102	24,865	4,995
Milk	lb.	26,645	912	22,777	3,440	38,905	3,365
Kerosene	galls.	48,698	2,903	6,652 drums 4's	806	12,055 drums 4's	1,549
Twist Tobacco ..	lb.	61,323	9,026	33,902	11,057	63,754	26,021
Toilet Soap.. ..	lb.	2,024	117	4,038	443	15,628	1,218
Household Soap ..	lb.	95,585	1,123	56,862	2,276	47,597	2,411
Cotton Piece Goods	yds.	n.a.		248,133	33,472	179,438	20,708
Fish Hooks ..	doz.	,,		8,845	546	4,127	412
Knives ..	doz.	,,		748	1,597	805	1,738
Other Items ..			133,808		362,229		411,248
Total		—	£A184,636	—	£A526,488	—	£A618,882

PRINCIPAL EXPORTS 1938-39, 1949 AND 1950

Item		1938-9		1949		1950	
		Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
			£A		£A		£A
Copra	tons	22,555	114,235	8,390	503,400	10,073	610,676
Brass Scrap ..	tons	...	...	201	31,406	1,826	191,730
Metal Scrap ..	tons	...	...	420	47,405	291	21,855
Trochus shell ..	tons	244	9,663	213	13,138	143	10,239
Ivory nuts	tons	43	145	...	...	17 tons	175
Timber	sq. ft.	2,974,808	14,064	1,181,289	16,432	...	...
Other Items ..			6,188		93,815		23,305
Total			*£A144,295		£A705,596		£A857,980

* Excluding bullion and specie.

N.A. = Not available.

The destination of exports was :—

DESTINATION OF EXPORTS

	1938-9	1949	1950
	%	%	%
Australia	68·5	55·8	36·8
United Kingdom ..	...	41·5	45·2
Other Europe	28·9	...	...
United States	...	...	17·9
Fiji..	...	1·0	...
Hong Kong	2·1	...	...
Other Countries	·5	1·7	·1

IV. DEVELOPMENT

Government Activities and Plans

The original 10-year Development Plan 1946-56 provided for the following expenditure :—

Capital costs	£A
Reconstruction Schemes	590,000
C.D. and W. Schemes	578,000
New Recurrent Costs	688,000
Total ..	£A1,856,000

It was estimated that all the funds for the plan would have to be provided by the United Kingdom Government in addition to a grant in aid averaging £S220,000 per annum. (The Protectorate's allocation from C.D. and W. Funds under the 1945 Act was £A675,000.)

The principal item in the plan was the construction of the new capital at Honiara to replace the capital, Tulagi, destroyed during the war. There were also provisions for improving health and educational services. The plan has been considerably revised since. A brief summary of the main development projects financed from reconstruction grants is given below.

Work is going ahead on the construction of the new capital at Honiara as fast as supply of labour materials, and money will allow. The wooden wharves at Honiara were destroyed by a storm in 1952 and shipping is being handled at Tulagi. A consulting engineer's report on port facilities was under consideration in 1952.

The amenities of Honiara have been improved by the building of a native Welfare Centre, a club and hotel for Europeans and a cinema.

District stations are being developed, subject to the prior requirements of Honiara and the availability of building materials.

The rebuilding of the Protectorate Hospital had not been begun. A small leper settlement at Tetere on Guadalcanal was completed in 1951.

Development financed by C.D. and W. monies can be summarised as follows :—

Experimental work in the agricultural field continues on the government farms at Ilu and Auki. It is hoped that a system of mixed farming may be introduced when experiments have been completed in methods of crop and livestock husbandry. There are considerable areas of grass plain (some 50,000 acres) on Guadalcanal and it is hoped that this may eventually be brought into effective agricultural production. It is proposed to establish a trial station of 1,000 acres to test its possibilities.

In the field of education it is proposed to make grants to mission schools and provide for their inspection, while agreement has been reached with respect to the principle of allocating places to government and mission entered pupils. The Auki experimental school was opened in 1950. A grant has been made to construct five primary schools on Malaita.

The commencement of the geological survey has already been referred to.

As a result of a forest survey a small forestry department is to be set up in Honiara to preserve and develop existing forest reserves. It is hoped to set up a small Lands Commission to make a start on the problem of determining land ownership.

Two new medical vessels are now in commission. A scheme for road building in Malaita is in abeyance due to technical difficulties.

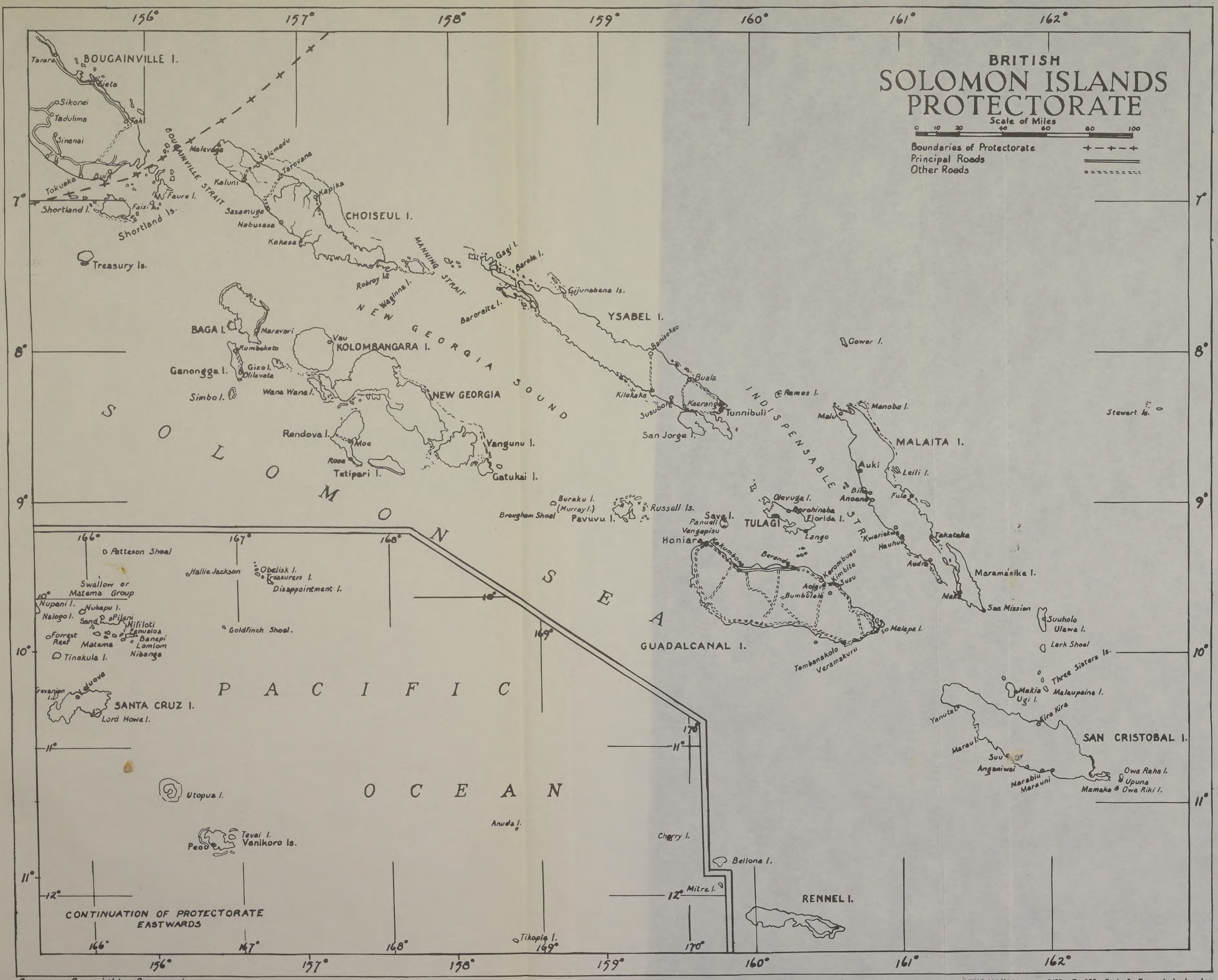
The number of C.D and W. schemes in operation and amounts spent up to 31st December, 1950, are as follows :—

COLONIAL DEVELOPMENT AND WELFARE SCHEMES

Description	*Title of Scheme*	*Date of Approval*	*Approved Grant*	*Amount spent up to* 31*st December*, 1950	
				From (a) Colonial Development and Welfare Funds	*(b) Local Funds*
			£A	£A	£A
Agriculture ..	Guadalcanal Demonstration Farm	April 1949	31,250	7,934	—
Education ..	Experimental School, Auki ..	June 1948	21,875	4,446	—
	Training of Students Overseas ..	December 1949	23,750	1,125	—
Forestry	Forest Survey	October 1944	6,500	5,120	—
	Forestry Department	August 1949	18,370	320	—
Lands and Mines	Geological Survey	August 1948	13,375	3,395	—
	Geological Expedition	August 1950	1,250	407	—
Marine	District Administration Vessels ..	October 1948	32,000	25,805	—
Medical	District Hospitals	February 1947	24,300	6,010	—
	Leper Settlement	February 1947	9,000	14,866	8,200 (Grant from Leper Trust Board of New Zealand)
	Medical Vessels and Vehicles ..	February 1947	27,800	25,040	—
	Rural Dispensaries	June 1948	1,425	1,425	—
	Students Training in Fiji	July 1949	5,313	622	—
	Tuberculosis Survey	March 1950	8,184	—	—
Miscellaneous ..	Census	February 1949 March 1949	1,100	733	—
	Meteorological Service	June 1950	416	52	—
Telegraph and Telephone	Wireless Equipment	August 1948	1,400	1,680	—
Works Development	Bailey Bridges	March 1947	24,000	13,694	—

Other Development

Copra production is expected to expand if more labour becomes available. A privately owned mixed farm on Guadalcanal is functioning well on a small scale and future development will be watched with interest. Attempts to work minerals in the past have failed and any further development is dependent on the results of the geological survey. The principal difficulty facing private enterprise is the amount of initial capital necessary for most types of development. The terrain is such that transport of equipment and goods overland is difficult and expensive. Labour is also expensive despite relatively low wages, and the shortag of skilled labour necessitates bringing in trained staff from overseas. It appears that unless newer easily-produced crops are found or workable mineral deposits are discovered the main scope for private enterprise will remain the copra industry.



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GILBERT AND ELLICE ISLANDS

Note.—Australian currency is used throughout this chapter except where otherwise stated.

I. GENERAL BACKGROUND

Geographical Features

The Colony comprises 37 coral atolls and islands spanning the Central Pacific Ocean. These islands form four groups comprising 16 Gilbert Islands, 9 Ellice Islands, 8 Phoenix Islands and 3 Line Islands, with Ocean Island as an outlier from the Gilbert Islands. The Gilbert and Ellice Islands form a chain lying in a N.W.-S.E. direction astride the equator between longitudes 172° and 180° East. The Phoenix Islands are scattered south of the equator between longitude 170° and 175° West, and the three Line Islands lie in a N.W.-S.E. line north of the equator between 157° and 160° West.

The total land area of the colony is only about 375 square miles, but the distances between some of the islands are vast. Most of the islands are of coral formation, being lagoon or reef islands with a narrow strip of land about half a mile in width. The land is rarely over 15 feet above sea level, except in the case of Ocean Island.

The headquarters of government are at Tarawa in the Gilbert Islands.

Although the Colony lies astride the equator the climate is not unduly hot nor subject to extremes owing to the moderating and cooling influence of the surrounding sea and the trade winds. Temperatures in the area are fairly uniform throughout the day and throughout the year, varying between 80° and 90° F. by day and dropping to a minimum of 70° at night. The period from January to May is slightly cooler than the remainder of the year. A marked feature of the climate is the high degree of variability of the rainfall, not only as between different islands, but also from year to year. In a normal year in the Gilbert and Ellice Islands and Ocean Island the annual rainfall ranges from 40 inches in the vicinity of the equator to about 100 inches in the North Gilberts and 120 inches in the Ellice Islands. Ocean Island and the Central and Southern Gilberts are subject to severe droughts, lasting for a year or more, during which the annual rainfall may fall to about 20 inches or occasionally to less than 10 inches. The wettest months are December to February and the driest August to September. The Line and Phoenix Islands also have a highly variable rainfall ranging from 25 inches to 100 inches a year. The amount of rain is strongly influenced by changes in the trade winds. Although squalls are common, hurricanes are rare.

There are no mountains or rivers in the Colony. Apart from the lagoons several of the islands have internal expanses of water. On most of the islands there are ponds, some salt and some fresh water. These are frequently used by the islanders for the cultivation of fish.

The soil of the Gilbert and Ellice Islands is of poor quality, consisting mainly of coral sand, with very little organic matter in it. There is some organic matter in cultivated soil, which is often enriched by mulching with leaves, and on the islands with higher rainfall such as Washington Island, in the Line Islands. Ocean Island is almost completely covered in phosphate.

Population

The Gilbertese are a Micronesian race and the Ellice Islanders are a Polynesian race. A census taken in 1947 showed the following distribution of population :—

POPULATION (1947 CENSUS)

	Micronesian	*Polynesian*	*European*	*Mongolian*	*European Micronesian*	*European Polynesian*	*Mongolian Micronesian*	*Others†*	*Total*
Ocean Island	1,351	441	138	112	11	2	4	1	2,060
Gilbert Islands.. ..	27,116	169	100	7	263	13	130	6	27,824
Ellice Islands	24	4,403	—	—	2	51	—	7	4,487
Phoenix Islands ..	953	16	4	—	2	1	8	—	984
Line Islands	403	5	29	21	6	3	1	1	469
Ships	76	32	33	2	2	3	1	27	176
Total	29,923	5,066	304	142*	286	73	164	42	36,000

* This figure had been increased by approximately 808 in 1940.
† These comprise Fijians, Solomon Islanders, etc.

The approximate age grouping of the population as shown by the Census of 1947 was :—

POPULATION BY AGE-GROUP

	Males	*Females*
Under 16	7,511	7,240
17-49	7,330	7,689
Over 50	2,933	3,297
Total	17,774	18,226

The Censuses taken in 1905 and 1916 in the Gilberts showed that the population was around 20,000, or only half of the estimated population in 1840, and the 1921 census recorded a further fall of 1,800. This continual decrease, observable since the impact of the European, ceased after 1921, the 1931 Census recording an increase of 3,100 in the decade. The Ellice Islands had not shown this early fall, although the rate of increase had slackened between 1911 and 1921 accelerating again between 1921 and 1931.

The population of the whole Colony is estimated to have increased from approximately 33,700 in 1931 to 36,000 in 1947. During this period, however, losses of population occurred due to resettlement of some islanders outside the Colony, war casualties, and departures of Chinese, European and native labour recruited for work outside the Colony. One estimate puts the average annual natural increase at around eight per 1,000 in the period. The estimated population at the middle of 1951 was 39,000. The Gilbert and Ellice Islands are becoming very densely populated. Although figures are only estimates owing to lack of accurate information on land area, Niutao and Nui are thought to have a density of over 500 persons per square mile, and at present rates of increase Little Makin, Tarawa, North Tabiteuea, Tamana, Nanumea, Nukufetau, Funafuti and Nukulaelae will reach this density within a generation. The Southern Gilberts are not so heavily populated, but owing to the liability to drought, they cannot carry large populations.

There is a small amount of emigration of Gilbertese and Ellice Islanders from their home islands to other Pacific Islands. The two principal movements of this nature were the transfer of the Banabans (natives of Ocean Island) to Rabi in the Fiji Group in 1945 and the settlement of Kioa, another island in the Fiji Group, by natives from Vaitupu in 1946. In 1937 the Phoenix Islands were included in the Colony and colonised by Gilbertese from the Southern Gilberts. It is possible that Christmas Island, the lease of which was resumed by the Government in 1949, may be colonised by settlers from the other islands in the future. Within the Colony movement of recruited labourers takes place (see page 138).

The vast majority of the Islanders are peasant proprietors who gather the produce of their own land and surrounding sea for their own consumption and for the production of copra, which they sell to their Island Co-operative Society. In this work they are assisted by their women-folk, who also engage in native handicrafts. There is, however, some wage labour (see page 138). The following table shows the occupations of all races other than European and Mongolian, as shown by the 1947 census :—

PRINCIPAL OCCUPATIONS (1947 CENSUS)

Occupational Group	*Males*	*Females*	*Persons*
Primary Production :			
Peasant Proprietors	6,735		
Copra Cutters	253		
Overseers	5		
General Labourers	1,305		
Households, Copra Production and Handicrafts	—	10,650	
	8,298	10,650	18,948
Construction, etc. :			
Carpenters	63		
Mechanics and others ..	30		
	93	—	93
Transport and Communications :			
Wireless Operators	38		
Ships' Crews	119		
	157	—	157
Public Administration and Professions :			
Police and Kabure	647		
School Teachers	290	61	
Nurses	—	35	
Others	292	—	
	1,229	96	1,325
Trade :			
Storekeepers' Assistants ..	60	—	60
Other Occupations :			
Students over 16	289	153	
Domestic Workers	107	106	655
Total	396	259	21,238

Social Amenities

Education

Nearly all adult natives can read and write in the vernacular, but the percentage who can speak English is low.

Primary education of the greater part of the Colony school population is in the hands of the Missions, whose work is subsidised by grants-in-aid from the Government. The Missions control 227 schools, 167 of which are grant-aided. Mission Schools consist of several different types of institutions, such as training establishments, which have a definite vocational bias in the direction of theological work and teaching, boarding schools of a slightly lower academic standard (including convents), and village schools, where the greater part of the population has received or is receiving its education. These latter schools are under native pastors who have graduated at the training centres of the respective missions.

The Government maintains and directly controls four schools, two of them boarding schools for boys, and two mixed day schools. There are no secondary schools in the Colony, and the Government therefore maintains 50 Gilbertese and Ellice Islands' pupils at the Ratu Kandavulevu (Primary) School in Fiji, whence they proceed to the Queen Victoria School, Fiji, for higher grade work in preparation for vocational and special courses or for further education in New Zealand. European children at Ocean Island receive education in a small school maintained by the British Phosphate Commissioners. European children on other islands may enrol in the Correspondence School of the Department of Education, New Zealand.

The total school attendance of the Colony in 1950 was 8,018, of which over 80 per cent were Gilbertese, and the rest mainly Ellice Islanders. The Colony Government was maintaining 44 students abroad in 1950, 41 in Fiji and three in New Zealand.

In 1947 the British Phosphate Commissioners at Ocean Island commenced a scheme for the training of native apprentices as carpenters, plumbers, blacksmiths, electricians, fitters and turners, motor mechanics and painters.

Health

The general health of the community is fairly good. None of the five major communicable diseases (Convention Diseases)—Plague, Smallpox, Cholera, Typhus, Yellow Fever—occur. Malaria is unknown owing to the absence of the Anopheles mosquito. The principal diseases are tuberculosis, yaws, filarial fever leprosy and dysenteries.

There is a dispensary and hospital on each of the main islands, staffed by a dresser and in some cases with a nurse ; a district hospital exists at Funafuti and a Central Hospital at Tarawa. Assistant medical practitioners are trained in Fiji. A hospital is maintained by the British Phosphate Commissioners at Ocean Island.

Housing

The natives of the Colony live in villages which vary in size from 10 to 150 houses. On the small islands there is usually only one large village, compared with twenty to thirty in the larger islands. The houses are usually 10 yards to 20 yards apart, and made completely of native materials except on the islands where materials were left by the U.S. forces after the war. On an average there are four to five persons living in each house. The water supply is obtained from community wells, and in a few cases from catchment off the roof of the church. Washing is done in the sea, lagoon or ponds. Village latrines are built over the reef. These native houses are eminently suitable for the environment, being clean, cool and made exclusively from locally produced materials, enabling them to be easily repaired. Every house is built and owned by the householder, there being no system of renting houses.

The houses of the Europeans in the Colony are often made of native materials but to a conventional design. At Ocean and Fanning Islands there are houses of normal European construction, including the accommodation for indentured labour.

The construction of houses for Europeans from native materials cost about 4s. per square foot in 1949, and housing of European construction about £2 per square foot.

Social Security

There is no unemployment as understood in highly organised communities as native workers are all landowners who do not depend on wage employment for their living. Those that are recruited for labour resume their agricultural pursuits when their term of employment terminates. Friendly Societies are non-existent. In accordance with native custom the aged and infirm are looked after by their relations.

Political Structure

The Gilbert and Ellice Islands Colony is one of the Western Pacific High Commission Territories. The Head of the Administration in the Colony is the Resident Commissioner, whose Headquarters are at Tarawa in the Gilbert Islands, and who is the local representative of the High Commissioner for the Western Pacific Territories. There is no Advisory or Legislative Council to assist the Commissioner in the exercise of his powers.

On each of the permanently inhabited islands there is a Native Government constituted under the Native Governments Ordinance, 1941. This Government consists of an Island Council presided over by the magistrate and composed of the officials on the island and elected members, a Native Court for dealing with offences under a code of statutory native law, and a Lands Court for dealing with matters concerning land. The magistrate is the head of the Native Government, being the principal judicial officer on the island. The chief executive official is the Chief Kabure. There is also a scribe who collects licence fees, fines and the Landowners' Tax, which is paid in copra; keeps account of Government cash received and disbursed, births, deaths, marriages, rainfall and shipping and minutes of Native Court proceedings in prescribed books. This system of local Government under the supervision of European officers has reached a more advanced stage here than elsewhere in the Pacific, and it may shortly become possible to allot even greater responsibilities to these bodies.

The Colony is divided into five Administrative Districts : Ocean Island, Gilbert Islands, Ellice Islands, Phoenix Islands and Line Islands. Relationships with adjacent territories and other external affairs are dealt with by the High Commissioner and advice and assistance in agricultural matters is obtained from the Department of Agriculture in Fiji.

Principal Economic Legislation

General

Companies are regulated by the Gilbert and Ellice Islands (Companies Registration) Regulation, 1915, and Co-operative Societies by the Native Co-operative Societies Ordinance, 1951, which replaced and extended the scope of the 1940 Co-operative Societies Ordinance.

Agricultural Marketing.—An ordinance of 7th May, 1950, provides for the establishment of a Copra Board with powers to purchase all merchantable copra produced in the colony and the control of its export. It prohibits the export of copra except by the Board or its agents.

Taxation.—Direct *taxation* is imposed under a number of Ordinances covering income tax, capitation tax, landowners' tax, stamp duties, etc. For details of taxes see page 139. All taxes, duties and fees payable by the British Phosphate Commission and its employees have been commuted in accordance with the British Phosphate Commissioners Taxation Ordinance, 1947 (see page 139).

Trade Tariffs

Import Duties.—On most articles there is an ad valorem import duty of 25 per cent (British preferential rate 12½ per cent). On machinery the rate is 20 per cent, on bicycles and perfumery 30 per cent, and on jewellery 40 per cent (preferential rates 10 per cent, 15 per cent and 20 per cent respectively). Some goods, of which the principal are flour, rice, milk, fruits and vegetables, sugar and plain soap, are subject to a general rate of 12½ per cent but are free if the British preferential tariff is applicable to them. Diesel oil, petrol and kerosene are subject to a specific duty per gallon of ¾d., 4d. and 3d. respectively. Duty on liquors and tobacco in 1951 was as follows :—

IMPORT DUTIES

		General			Preferential		
		£	s.	d.	£	s.	d.
Beer, etc.	per gallon		6	0		3	0
Wine (sparkling) ..	„ „		18	0		12	0
„ (still)	„ „		9	0		6	0
Spirits	„ „	2	5	0	1	10	0
Tobacco (stick, twist or leaf)	„ lb.		2	0		2	0
Tobacco in packets or plugs	„ „		4	6		3	0
Tobacco in tins ..	„ „		7	6		5	0
Cigars	„ „		11	3		7	6
Cigarettes	thousand	1	6	8	1	0	0

There is an export duty on copra at the rate of 25 per cent, an f.o.b. value.

Under Customs Regulations various Proclamations have been made restricting exports and imports in certain respects. Under Proclamation No. 2 of 1948 all exports other than those contained in the specified list are prohibited except under licence. The specified list includes phosphate, locally produced foodstuffs and gifts other than foodstuffs. The export of copra is also licensed under Proclamation No. 1 of 1948.

Labour

The principal Labour legislation is contained in the Gilbert and Ellice Islands (Labour) Regulations, 1915, with amending Ordinances to 1946. The following subsidiary legislation has also been enacted :—

Employees Control Ordinance, 1929 ;
Employment of Women, Young Persons and Children Ordinance, 1931 ;
Minimum Wages Ordinances, 1932 ;
Forced Labour Prohibition Ordinance, 1933 ;
Employees Control (Repatriation) Ordinance, 1940 ;
Trade Unions and Trades Disputes Ordinance, 1946 ; and
Workmen's Compensation Ordinance, 1949.

This legislation has recently been consolidated and revised so as to conform with all the International Labour Conventions which have been applied to the Colony. A worker unaccompanied by his family may now only be contracted for one year. There are no Trade Unions in the Colony.

Land Tenure

All land, apart from a very small area, in the Gilbert and Ellice Islands and on Ocean Island, is owned by natives, as also are such areas in the Phoenix Islands as have been granted to colonists. In the early years of the Colony alienation of small areas of native land was permitted, but this has been progressively restricted and is now prohibited under the Native Lands (Leases) Ordinance, 1940, which also controls the leasing of native land. In the Line Islands, Fanning and Washington Islands are owned by Fanning Islands Plantations, Ltd., but may not be transferred to an alien without the consent of the High Commissioner ; Christmas Island is owned by Government. The tenure of native land and its transfer between natives is governed by native custom and a Lands Commission has been set up under the Native Lands Ordinances, 1922 to 1947, to deal with matters arising out of disputes as to ownership of land and the codification of custom under the Native Lands Codes Ordinance, 1940.

On Ocean Island the land is mainly owned by the Banabans, and areas are leased as required by the British Phosphate Commissioners for mining purposes. Under the Mining Ordinance, 1928, the Resident Commissioner has power in certain circumstances to enter into possession of land required for mining which the owner is not prepared to lease to the person wishing to mine it.

Immigration

There is no special Immigration Law in the Colony, the only law governing entry being the Passport Ordinance, 1927, and Part VI of the Gilbert and Ellice (Consolidation) Ordinance, 1917, which controls the entry of destitute persons.

Communications and Transport

Owing to the geographical configuration of the Colony shipping is the principal means of communication and transport.

External

Ocean Shipping

As no shipping routes pass through the Colony it is necessary for all organisations operating in the Colony to own or charter ships. For shipping communication with the outside world the Colony is dependent on :—

(*a*) Phosphate vessels plying between Ocean Island and Australia or New Zealand ;

(*b*) Cargo vessels calling at Tarawa about every six months, and the Line Islands about once a year to load copra for the United Kingdom ;

(*c*) Annual recruiting trips operated by the British Phosphate Commissioners or Messrs. Fanning Islands Plantations, Ltd. ;

(*d*) Small Government, Mission and other ships plying between Fiji and Funafuti or Tarawa ; and

(*e*) Cargo vessels diverted quarterly by Cable and Wireless, Ltd., to visit Fanning Island while en route from Apia, Western Samoa to Vancouver, Canada.

There are no large ports in the area, and except at Ocean Island facilities for handling cargo are restricted to piers and jetties serving only small craft, usually lighters or boats.

Air Services

The only regular air communication is through Canton Island, which is a " stop over " for aircraft flying the Pacific route between Suva, Fiji and Honolulu. The Civil Aeronautics Association and Pan-American Airways maintain this aerodrome. Experimental charter flights from New Guinea to Tarawa were commenced in 1951.

Internal

Inter-Island Sea Transport

The Colony fleet consists of one 68-foot auxiliary ketch and one 80-foot motor vessel. The Colony Wholesale Society operates two 120-foot twin screw motor vessels for copra collection around the islands. The three Missions also operate small vessels in the Colony.

Roads

All islands in the Colony with the exception of those recently settled by Gilbertese in the Phoenix Group have lagoon-side roads running their entire length, broken only where the atolls are divided into separate islets by the sea. There is a small amount of vehicular traffic on some of the islands.

There are no railways in the Colony apart from about four miles of two feet gauge line on Ocean Island used for conveying phosphate from the fields to the dryers.

Communications

There is a central post office at Tarawa and district offices at each district headquarters. Surface mails from the Colony other than from Ocean Island are irregular.

In 1951 there were 22 Government radio stations providing a wireless telegraphy service. There are also private radio telephone stations and several small party-line telephones.

II. PRODUCTIVE ACTIVITIES

Agricultural Conditions and Methods

Agricultural production is limited by the inherently poor quality of the soil, which has been formed for the most part by the accumulation of sand on coral reefs, enriched by humus from rotting vegetation. As a large proportion of the cultivable area is already in use no substantial increase in agricultural output is likely apart from raising the yields of coconut palms.

Local Food Products

Copra is virtually the colony's only agricultural export, and coconuts also form an important part of the local diet. The only other local foodstuffs of importance are pandanus and a calladium or taro known as " babai ". Breadfruit, papaw, sweet potato, arrowroot and bananas are cultivated to a limited extent. In the Central and Southern Gilberts with poor soil and low rainfall not much except the coconut will grow, while in the wetter Northern Gilbert and Ellice Islands taro also grows well. Christmas Island is liable to drought and at present only supports coconuts and pandanus although it is hoped to introduce breadfruit and papaw. Washington Island, with the heaviest rainfall and the richest soil, has the best vegetation in the Colony.

Owing to limited vegetation and lack of fodder, the only livestock are pigs and fowls, apart from a herd of cattle on Niulakita. Attempts to introduce goats have been unsuccessful.

Cash Crops

Copra.—Coconuts grow abundantly throughout the islands, needing little cultivation. The number of coconut palms estimated at the time of the census in 1947 was very approximately : 2,200,000 (Gilberts), 330,000 (Ellice), 540,000 (Line Islands) and 15,000 (Phoenix).

Approximately 80 per cent of the copra exported is contributed by native producers and the remainder by the commercial plantations. The production of copra in the Gilbert, Ellice and Phoenix Islands is in the hands of native landowners. Production is affected not only by seasonal conditions and prices, but by the quantity of consumer goods available. Where cultivation is practised by native producers, the germinating nuts are placed in a hole with a few pieces of rusty iron. Yields are low, averaging about 6 cwt. an acre. Spasmodic attempts have been made to improve yields by reducing tree density, but this has not proved popular with native producers. The coconut plots of native landowners vary greatly in size. Usually the plot extends across the island and may be a strip varying in width from a few yards to half a mile. Attempts are being made by the Lands Commission to reorganise the present system of land tenure which tends towards fragmentation and dispersal of holdings.

The only commercial plantations are those worked by Fanning Plantations, Ltd. (a subsidiary of Burns Philp, an Australian Company) on Fanning and Washington Islands (Line Islands) and those worked by the government on Christmas Island (Line Islands) and Niulakita (Ellice Islands).

Before the war the export of copra averaged about 6,000 tons per year, with an f.o.b. value of around £10 per ton (average 1935-1939). During the war production ceased in the Gilbert and Ellice Islands, but continued in the Line Islands.

Exports of copra in 1937-38 and since the war have been :—

EXPORT OF COPRA, 1937-50

	Quantity	*Value f.o.b.*
	Tons	£A.
1937-38	4,850	54,307
1946	2,997	85,159
1947	6,634	203,936
1948	4,007	148,657
1949	5,460	330,666
1950	8,430	566,400 (estimated)

All copra exported is at present sold to the United Kingdom Ministry of Food under a nine-year contract running from 1949-1957, which provides for an annual price review and a floor and ceiling price not more than 10 per cent below or above that of the previous year. For prices paid by the U.K. Ministry of Food, see pages 95 and 96.

Before the war native producers sold their copra to one of the large trading firms operating in the area. These firms left the Colony during the war and it was necessary to set up an alternative organisation when the Colony was reoccupied. Co-operative societies were therefore established on each island to purchase copra from members and sell them supplies of trade goods (see below). These societies sell to and purchase from the Colony Wholesale Society. Legislation was enacted in May, 1950, establishing a Copra Board to purchase and export all copra produced in the Colony. The price paid by the Board must be as nearly equivalent as possible to the price the Board receives for copra after deducting expenses and taxes. The Colony Wholesale Society and Fanning Islands Plantations, Ltd., act as the agents of the Copra Board for the purchase and export of copra.

Forestry

Although coconut and pandanus palms abound there are no forests in the usual sense of the term in the Colony. Coconut wood is used to a small extent for building but is generally unsuitable for this purpose. The pandanus tree provides the main building timber in the Colony. There are a limited number of other trees such as Calophyllum inophyllum, a pink hardwood, and pisconia grandis, a white soft-wood, which are used for canoe building.

Fisheries

The local islanders are skilled fishermen and fish forms one of the main items of their diet. Fish are caught by line, by net, or in fish traps built on the reef, and by a variety of other specialised techniques. In addition to marine fishing the islanders cultivate a species of fish in fresh water ponds and lakes in the islands. Trading in fish products is limited to the sale of sharks' fins to the Chinese labourers employed on Ocean Island and the export of small quantities of fish products to Fiji. The waters of the Colony are well supplied with fish. Widespread investigations have been made around the Phoenix and Line Islands by vessels of commercial firms operating from Honolulu and a firm from Fiji, South Seas Marine Products Ltd., has made tentative investigations in the Gilbert and Ellice Islands.

Minerals

Phosphate of lime, which is the only mineral found in the Colony, is mined at Ocean Island. This phosphate deposit was discovered at the beginning of the century and the Pacific Phosphate Company commenced operations in 1901 in conjunction with operations at Nauru. After the 1914-18 War the Pacific Phosphate Company was bought out by the Governments of the United Kingdom, Australia and New Zealand in shares of 42 per cent, 42 per cent and 16 per cent respectively, and the British Phosphate Commissioners were established as a joint organisation of the three Governments concerned for working these two islands. It is estimated that Ocean Island contained before working commenced some 20,000,000 tons of phosphate and that about 8,000,000 tons have been mined and exported to date. Export during the immediate pre-war years averaged about 300,000 tons a year, but it is proposed in future to restrict the output to approximately 200,000 tons a year in order to lengthen the life of the deposits. The installations at Ocean Island were damaged during the war and export only recommenced in August, 1946, since when exports have been at the following rate:—

EXPORTS OF PHOSPHATE

Year	*Tons*
1946	29,200
1947	209,100
1948	124,909
1949	260,900
1950	247,250
1951	252,422

No figures of the value of exports are available. The phosphate industry is an important source of royalties and other contributions to the Colony's revenue.

Village Industries

The only local crafts are the weaving of hats, mats, baskets and fans from coconut and pandanus leaves, carving of model canoes and traditional weapons and the making of shell necklaces. Before the war sporadic individual efforts were made to organise an industry in handicrafts and sales of a small quantity of fine quality produce were arranged. A profit of £1,170 was accumulated in this trade during the war and in 1947 a Co-operative Wholesale Handicrafts Society was formed, using this profit as initial capital with the object of building up an organisation to handle all exports other than copra and phosphate. The sales of this Society amounted to £2,520 in 1947, £5,598 in 1948 and £8,443 in 1949. These goods are purchased by the Retail Co-operative Societies and marketed through the Co-operative Wholesale Handicrafts Society. In addition to the purely handicraft lines these societies also trade in the production of native foodstuffs, marine products such as sharks' fins, dried fish and shells, and local building materials. In 1950 the Society was taken over by the Colony Wholesale Society.

Other Economic Activities

Tourism

The only hotel in the Colony is the Pan American Airways Hotel at Canton Island used by passengers in transit. There is no other tourist traffic in the Colony. Visitors passing through Canton Island make purchases amounting to about £50 a month at the local Handicrafts Store and also purchase sets of the Colony's stamps.

Distributive Trade

As the big firms which previously traded in the Colony have not resumed their activities since the war, retail trade is entirely in the hands of the Co-operative Societies (see below), and wholesale trade is conducted by the Colony Wholesale Society. Between 1943 and 1947 the trading of the Colony was in the hands of the Government Trade Scheme.

Professions

The only professional persons are those in the employ of the Government, the missions, the British Phosphate Commission and Cable and Wireless Ltd.

Co-operative Movement

The first Societies were started in the Gilbert and Ellice Groups in 1925, and by 1933 there were 34 in the Gilberts alone ; in 1938 the last non-native owned retail store closed down. The movement was handicapped however by lack of legislative control and administrative guidance, and by the fact that the societies had to buy their trade goods from, and sell their produce to, a trading firm which had a virtual monopoly. Although they ceased to function during the war they have been enthusiastically revived since the war. A Co-operative Societies' officer who was appointed in 1947 has reorganised and developed the native trading societies and registered retail societies in various islands. The registration of island societies in the Gilberts has now largely been completed. There are unregistered trading agencies in the Ellice Islands and in the Phoenix Islands. Some of these are not yet trading on an organised co-operative basis. In 1951 there were 26 registered societies with a membership of 12,575 and 32,583 registered customers. Eight registered societies in the Central Gilberts formed their own union in 1950.

The co-operative societies purchase copra from the native producer and sell it to the Colony Wholesale Society which maintains current accounts for each of the island societies. These accounts are credited with the value of copra received and debited with the value of trade goods purchased by the island societies (these goods being costed at retail value less a discount of 14$\frac{2}{7}$ per cent). The margin of profit allowed to the societies on copra sold to the Colony Wholesale Society was £3 10s. per ton in 1949 but was raised to £4 10s. per ton in January, 1950, and made retrospective to January, 1949. Until the societies have accumulated sufficient profit from goods discount and copra sales their account is in debit but covered of course by stocks of trade goods and copra awaiting shipment. The aggregate debit balances with the Colony Wholesale Society were reduced to £38,237 by March, 1950, and eight of the societies had credit balances. The aggregate funds of registered societies totalled £109,462 at the same date.

The Colony Wholesale Society at the end of 1950 showed a profit on merchandise of £21,473 after allowing rebate and discount of £25,506. Net sales amounted to £162,173. Aggregate funds were £228,135.

All of the £31,250 capital borrowed from Her Majesty's Government had been repaid by 1950 by the Colony Wholesale Society. Of the profits of the Colony Wholesale Society £7,500 was distributed amongst the Island Societies in 1949 in proportion to their trade.

A Colony Societies Development and Copra Welfare Fund was established in 1949 by deducting £7 per ton on exports of copra. The purposes of the fund (£109,463 in December, 1950) are to make loans to the societies and to assist the copra industry.

The trading functions of the Colony Wholesale Society are being taken over by a Co-operative Wholesale Society and its banking functions by a Co-operative Central Bank, both of which latter were in process of formation during 1952. For financial position of Colony Wholesale Society see page 141.

Employment and Labour Supply

Local Employment

Every native is a landowner in the Colony, and it is not customary for one native to work for another as a wage earner. The large scale employers of paid labour in the Colony are the Government, the British Phosphate Commissioners at Ocean Island, and the plantations in the Line Islands. The British Phosphate Commissioners employ about 1,200 unskilled labourers. Before the war this labour force was part Gilbertese and part Chinese. After the war and up to 1948 this labour force consisted wholly of Gilbertese and Ellice Islanders, but as a result of a labour dispute the Gilbertese were repatriated and replaced by Chinese. In 1950 the labour force consisted of 100 Chinese and 1,000 Gilbertese and Ellice Islanders. Government employs approximately 500 persons in the Colony Service and 550 in the Island Administrations. The commercial plantations employ around 250 and the registered Co-operatives some 270. Employers of smaller numbers of labourers include Pan American Airways at Canton Island, the Colony Wholesale Society, and the Missions.

Native employees in the colony service receive salaries ranging from £78 to £360 a year ; those in the island administrations, who usually have other employment as well, receive salaries up to £50 per annum.

Up to 1948 the British Phosphate Commissioners paid native labourers wages of £3 3s. a month plus overtime, rations, accommodation, and hospital treatment, the total cost per month to the British Phosphate Commissioners averaging £10 per labourer. Wages were increased in mid-1949 to £6 10s. per month, equalising native and Chinese rates and in 1950 to £8. Labourers on the plantations in the Line Islands received £4 per month in 1950, plus overtime, with rations, accommodation, and medical treatment.

The British Phosphate Commissioners have a 47 hours' working week of which three hours are paid at overtime rates. The Plantation labourers work a 48 hours' week; workers receive the ten statutory holidays a year. Labour is recruited for work on Ocean Island and the Line Islands from the other islands in the group. Labour may be recruited for any period up to a year and a half if accompanied by the labourer's family, or one year if unaccompanied. Labourers are recruited from and repatriated to their home islands by their employers. The supply of labour is plentiful throughout the islands ; recruitment is governed by licence issued by the Resident Commissioner. It is estimated that up to 2,000 labourers could be recruited without upsetting conditions on their home islands. In 1950 the total number of recruited labourers amounted to about 1,000. When the price of copra is high there is not much incentive to take paid employment, but should the copra price once again fall towards the prewar figure it would be necessary to find an outlet for surplus labour.

Migrant Labour

The only emigrant labour consists of a small number of natives employed by Pan American Airways on Wake and Midway Islands and labour recruited as ships' crews by the Pacific Shipowners Company. These men are recruited for one year in the case of Pan American Airways, and two years in the case of the Pacific Shipowners. The former receive the same wages as other labourers employed on the same work on Canton Island, with free accommodation and rations. The labourers recruited as seamen received £8 per month in 1949. These emigrant labourers are able to make remittances through Government to their families on their home islands, but in most cases they are single and do not therefore do so.

Owing to the lack of professional and skilled labour in the Colony all technical positions are filled by expatriates. The Government employ approximately 60 expatriate officers and the British Phosphate Commissioners at Ocean Island employ about 70 Europeans and 100 Chinese technicians. Salary rates range from £14 per month plus free quarters and rations for the Chinese technicians up to salaries in excess of £1,000 a year for the higher European executives. Recruitment of Chinese labour is carried out by British Phosphate Commissioners' Agents in Hong Kong under the control of the Hong Kong Colony Government. This recruitment is for an annual contract which may be renewed. There are no International Agreements which govern the employment of this labour. It is proposed to replace Chinese by native labour and to increase mechanisation.

Fuel and Power

Power resources are small. There are electric light plants at Tarawa and Funafuti operated by the Public Works Department, at Ocean Island operated by the British Phosphate Commissioners, at Fanning Island by Cable and Wireless Ltd., at Christmas Island by the Plantation, and at Canton Island by Pan American Airways. Lighting on most islands is by kerosene, hurricane or coconut oil lamps.

III. FINANCE AND TRADE

Public Finance

In pre-war years owing to the very low price of copra the revenue resources of the Colony were very limited, and only by great financial prudence was expenditure kept near revenue. Not since 1932/33 has revenue exceeded expenditure, the deficit being made up from accumulated funds. In December, 1941, Ocean Island and the Gilbert Islands were occupied by the Japanese, and revenue from the British Phosphate Commissioners and other sources in the Gilbert Islands ceased. In 1942/43 it was necessary to seek a Grant-in-Aid from Imperial funds, and the Colony continued to receive an annual subvention during the war and up to 1948 amounting to some £300,000 over the period. With the revival of the copra industry at the end of the war and the high prices ruling, the export duty was raised from five per cent to 25 per cent. The British Phosphate Commissioners were also able in 1946 to resume the export of phosphate resulting in payments to revenue in respect of royalties. Revenue has recovered remarkably, but as a result of the war expenditure has been incurred on rehabilitation, rebuilding Colony and District Headquarters' Stations, and replacement of vessels. No grants in aid have been received since 1948, as expenditure on rehabilitation has been less than expected owing to supply difficulties. Yearly deficits have been met from previously accrued grants.

Revenue and Expenditure from 1938-39 to 1952 are shown below :

REVENUE AND EXPENDITURE, 1938-39 TO 1952

Year	*Local Revenue** £A	*Total Expenditure* £A
1938-39	85,371	101,139
1939-40	63,413	79,543
1940-41	53,403	86.207
1941-42	34,579	61,946
1942-43	25,416	70,458
1943-44	22,977	96,780
1944-45 (1)	24,731	190,853
1945-46 (2)	32,288	226,561
1946-47 (3)	94,221	184,025
1947-48	141,142	271,616
1948-49	260,234	276,368
1949 (4)	222,565	335,863
1950†(5)	272,302	316,802
1951†	290,928	355,211
1952	365,755	480,387

* This column excludes C.D.W. grants, other Imperial grants for specific purposes and grants-in-aid.

† Revised estimate.

(1) Up to and including this year the financial year was from 1st July to 30th June.

(2) Nine months only, i.e., 1st July to 31st March.

(3) 1st April to 31st March from this year to 1948-49.

(4) For period 1st April to 1st December, 1949.

(5) For calendar year from this year.

Grants from the U.K. for specific purposes (i.e., other than grants-in-aid) have been :—

U.K. GRANTS, 1938-39 TO 1951

Year	(4) *Development*	(5) *Other*	*Total*
	£A	£A	£A
1938-39	11,188	703	11,891
1939-40	3,261	1,172	4,433
1940-41	4,219	937	5,156
1941-42	1,080	937	2,017
1942-43	1,250	937	2,187
1943-44	—	937	937
1944-45	—	937	937
1945-46	—	937	937
1946-47	—	—	—
1947-48	3,408	—	3,408
1948-49	5,140	—	5,140
1949 (1)	20,633	—	20,633
1950 (2)	22,000	—	22,000
1951 (3)	59,604	—	59,604

(1) 1st April to 31st December.

(2) Revised Estimates.

(3) Estimates.

(4) Colonial Development Fund to 1942-43 inclusive (grants towards Phoenix Islands Settlement Scheme) ; Colonial Development and Welfare from 1947-48.

(5) Contribution in respect of New Hebrides and Tonga services performed at Suva.

Revenue and expenditure under the various heads for years from 1947-48 to 1950 (revised estimate) are shown on page 140.

The sum of £A28,250 was advanced by His Majesty's Government during the war for the initiation of the Trade Scheme. In addition a loan of £A56,000 was advanced by His Majesty's Government after the war for the purchase of two cargo vessels for the Trade Scheme. During the financial year 1947-48 a sum of £A10,000 was repaid to His Majesty's Government. A further sum of £A8,250 was repaid during 1948-49. It is expected that by 1957 or earlier the whole of the U.K. loans to the Trade Scheme will have been repaid.

The main source of Government revenue in the Colony is the export duty on copra of 25 per cent of the f.o.b. value. The yield from this tax in 1950 was approximately £141,000 and that from import duties £26,000. This is slightly higher than the estimate shown on page 140. Yield from both duties is now thought to be much lower in 1951 than estimated.

The British Phosphate Commissioners make a contribution to the revenue of the territory which is governed by periodical negotiated agreements under which the B.P.C. and its employees on Ocean Island are exempt from other forms of local taxation. Under an agreement made in 1946 the B.P.C. paid royalties of 1s. 9d. per ton plus £24,000 per year in commutation of all other taxation. A new agreement which came into force 1st April, 1951, provides for the payment of £40,000 per year, plus 6s. per ton royalty on all phosphate exported.

A landowner's tax is imposed yearly on each island, in tons of copra, to which landowners, who cannot be other than natives of the Colony, contribute in proportion to their property. The yield in 1950 was £5,000, considerably lower than estimated, while the 1951 yield is much higher than estimated.

Income tax yielded some £5,000 in 1950 and some £9,000 in 1951.

The Government Trade Scheme (renamed the Colony Wholesale Society) pays about a quarter of the total and the remainder is contributed by the two plantations and persons domiciled overseas.

Income tax rates are as follows :—

The rates of tax for residents and absentees, other than companies, are :—

One shilling and threepence in the £ plus as many times ·012d. as there are pounds of taxable income until at £5,000 the maximum rate of 6s. 3d. in the £ is reached. Exemptions are : statutory exemption £200 ; allowance for wife £300 ; dependent child £50 (+£25 if being educated) (maximum £250) ; payments to widows and orphans' pension fund ; life insurance up to £200.

Surtax is payable in addition. Rates of surtax are : On that part of chargeable income between £1,500 and £3,000, 1s. 3d. per £ ; £3,000 and £5,000, 2s. 6d. ; £5,000 and £10,000, 3s. 9d. ; £10,000 and £15,000, 5s. ; £15,000 and £20,000, 6s. 3d. ; £20,000 and £25,000, 7s. 6d. ; £25,000 and £30,000, 8s. 9d. ; over £30,000, 10s. There are also estate duties ranging from two to 40 per cent.

Company tax is charged at the following rates : Insurance Companies, 9d. on every pound of chargeable income; shipping companies, 4½d. on every pound of chargeable income ; other companies, 7½ per cent on all chargeable income.

Capitation tax is a tax of £10 per year payable by non-native residents other than Government officials, Ministers of Religion, etc.

REVENUE, 1947-48 TO 1950

	1947-48	1948-49	1950 (*revised estimate*) *Jan.-Dec.*
	£A	£A	£A
Customs Duties	61,222	152,382	157,000
Direct Taxation (1)	7,755	32,414	23,852
Licences and Fines	2,245	2,206	3,350
Fees, Payments for Specific Services	13,364	10,763	11,843
Marine—Fares, Freights, etc.	—	—	8,530
Post Office and Telegraphs	6,759	4,012	—
Miscellaneous Revenue from Government Property	23,684	16,218	38,550
Reimbursements	1,071	—	4,677
Miscellaneous	25,042	42,239	24,500
Colonial Development and Welfare Grants	3,408	5,140	22,000
	144,551	265,374	294,302
Grants-in-Aid	127,066	50,000	31,250
	£A271,616	£A315,374	£A325,552

(1) Income Tax, Capitation Tax, Landowners' Tax.

EXPENDITURE, 1947-48 TO 1950

	1947-48	1948-49	1950
	£A	£A	£A
Normal Expenditure			
Agriculture	1,093	1,199	1,904
Audit Department	554	842	1,492
District Administration	10,716	10,981	13,332
Education Department	4,541	5,857	8,200
High Commissioner's Department	9,589	9,624	12,599
Island Administration	6,696	6,548	8,264
Judicial and Legal Department	1,777	1,547	1,272
Lands Commission	1,533	1,932	3,000
Marine Transport	27,362	28,318	45,860
Medical Department	21,840	26,620	36,360
Miscellaneous	43,623	12,402	17,000
Pension and Gratuities	4,746	11,594	10,721
Phoenix Islands Settlement Scheme	56	—	—
Police and Prisons Department	7,820	7,493	13,550
Postal Department	1,169	2,138	2,171
Public Relations	400	694	760
Resident Commissioner's Department	4,566	5,361	7,600
Stores Department	2,650	4,328	2,796
Treasury and Customs Department	4,942	6,800	9,000
Wireless Telegraph Department	6,029	8,393	13,500
Works Department	3,038	4,334	5,599
Works (Annually Recurrent)	1,684	4,339	5,712
Works (Extraordinary)	15,893	8,513	13,700
	£A182,317	£A169,857	£A234,392
War and Rehabilitation			
Marine Transport	40,389	58,531	30,303
Defence	8,058	2,882	350
War Damage Commission	1,096	—	—
Rehabilitation	22,760	5,024	1,357
Works Construction	14,651	17,332	28,400
Colonial Development and Welfare Schemes			
Lands Settlement	1,911		
Co-operative Societies Officer	435	4,445	22,000
Other	—		
Arrears of Salary and Cost of Living Allowance	—	18,297	—
	£A271,617	£A276,368	£A316,802

The estimated liabilities and assets of the Colony at December 31, 1951, were :—

ESTIMATED ASSETS AND LIABILITIES OF COLONY AS AT 31ST DECEMBER, 1951

Liabilities		*Assets*	
	£A		£A
Deposits	250,000	Cash in Hand and Bank	134,996
Vessels Replacement Fund	9,823	Drafts and Remittances	2,000
General Revenue Balance	148,673	Advances	120,000
		Imprests	1,500
		Investments	150,000
	£A408,496		£A408,496

The financial position of the Colony Wholesale Society as at 31st December, 1950, was as follows :—

LIABILITIES AND ASSETS, 31st DECEMBER, 1950

Liabilities	£A	*% Assets*	£A
General Reserve	136,450	Fixed Assets	94,131
Profit and Loss Account	42,951	Investments	27,757
Specific Reserves	48,734	Copra Stocks	31,890
Trade Creditors	45,378	Goods	79,687
Deposits	15,859	Sundry Debtors	71,348
Colony Societies Development and Copra Welfare Fund	43,093	Cash at Bank	22,486
		Prepayments	5,166
	£A332,465		£A332,465

Currency and Banking

The Colony has no currency system of its own. Under the authority of the Currency Ordinance, 1937, Australian currency notes and coin are legal tender within the Colony, and also coin of the United Kingdom. The estimated amount of currency in circulation at the end of 1951 was £156,187.

Rates of exchange are : £St1 = £A.1 5s. ; £N.Z.1 = £A.1 5s. ; £F.1 = £A.1 2s. 7d. ; and at Canton Island one dollar note or coin = 8s. 4d. (Aus.) and 1 Canadian dollar = 7s. 6d. (Aus.).

There are no private financial institutions or commercial banks operating in the Colony. A Government Savings Bank was opened at Tarawa in 1948, and district offices in 1949. At the end of 1951, deposits stood at £66,000 (total deposits had amounted to £120,000, of which £1,271 had been withdrawn). Depositors numbered 2,000.

A Co-operative Central Bank was in process of formation during 1952, its main intended functions being to hold the surplus funds of wage loans to the Islands' co-operative societies. These functions have hitherto been carried out by the Colony Wholesale Society.

Cost of Living

A Retail Price Index for expatriate staff in the Colony is calculated quarterly on the basis of the commodity valuations as used in compiling the index in Fiji and the retail prices in the Colony Wholesale Society Stores. Since this index figure was first calculated the following movements have occurred :—

Cost of Living Index—Expatriate Staff

1939	100
31st December, 1947	196
31st December, 1948	224
31st December, 1949	227
31st December, 1950	228

A survey of the budgets of a number of typical families of native members of the Government Service was undertaken at Tarawa in 1948. These budgets gave very variable results, but by eliminating the more extreme ones, an average budget was compiled for a family of three adults and two children. This budget showed a monthly consumption of the following articles :—

		£	s.	d.
Group I.	Food	7	2	5
Group II.	Lighting and Cleaning		17	9
Group III.	Rent		16	0
Group IV.	Clothing		8	6
Group V.	Kitchenware		1	0
Group VI.	Other Items		13	2
	Total	£A.9	18	10

The movements of the retail price index on this budget have been as follows :—

Cost of Living Index—Native Staff

31st December, 1946	100
31st December, 1947	109
31st December, 1948	124
31st December, 1949	136
31st December, 1950	133

Balance of Trade

The Colony imports foodstuffs to supplement local production, and all requirements of manufactured goods and raw materials. It is not possible to give total value of exports owing to lack of information on the value of exports of phosphates. The value of the latter, as far as the Colony is concerned however is limited to the value of imports into Ocean Island, the monies paid out locally in wages and royalties and other contributions to government revenue. The remainder accrues to authorities abroad.

Retained imports excluding imports into Ocean Island were :—

Retained Imports

	£A.
*1937/8	214,449
1946	98,470
1947	129,447
1948	197,850
1949	121,170
1950	256,065†

* Including imports into Ocean Island.
† Provisional.

The principal imports are foodstuffs such as rice, flour, biscuits, sugar and provisions ; and cotton piece-goods, tobacco, hardware, soap, kerosene and machinery. Australia is the Colony's largest supplier, followed by the United Kingdom. The sources of imports are shown below :—

SOURCES OF IMPORTS

	1937-38	1948	*1950
	%	%	%
Australia	37·4	42·8	32·4
United Kingdom	32·1	20·8	37·2
United States	6·9	14·8	13·2
New Zealand	2·3	6·4	7·8
Fiji	1·3	4·3	6·9
India	·7	1·7	0·6
Canada	2·5	2 7	0·3
Other	16·8	6·5	1·6
Total	100 £A.214,449	100 £A.197,850	100 £A.256,065

* Provisional.

As a result of the appreciation of New Zealand currency in 1948 there was a marked tendency to replace New Zealand imports by goods from other parts of the sterling area.

Virtually the only exports are copra and phosphate. (For export of copra and of phosphate see pages 137 and 138.) Minor exports are native handicrafts and marine products, which totalled £5,433 in 1948.

All copra is exported direct to the United Kingdom apart from a small quantity sent to Suva as ballast. Before the war Line Island copra went to the United States, and copra from the rest of the Colony to Australia. Approximately three-quarters of the phosphate exports go to Australia and the remainder to New Zealand. Before the war occasional shipments were made to Japan, the United Kingdom, and Europe, but these have now ceased.

IV. DEVELOPMENT

Government Activities and Plans

The Colony prepared a Ten-Year Development Plan in 1946, two-thirds of which was to be financed by United Kingdom grants for reconstruction, development and welfare, and by grants-in-aid. As projected expenditure exceeded the allocation however the plan had subsequently to be modified. The plan provided for the reconstruction of the capital and of villages, district stations, schools and hospitals destroyed during the war, the rehabilitation of native landowners, the building of an agricultural station and of more schools and hospitals, the development of the co-operative movement, the resettlement of peoples from the crowded islands, and the improvement of marine transport facilities.

The rehabilitation of villages and native landowners is now largely complete. (This was financed by a United Kingdom Grant-in-Aid of approximately £100,000.) The rebuilding of Colony and District Headquarters has not progressed so rapidly. Those at Funafuti and Ocean Island are complete, but the main work had not commenced on the rebuilding of Tarawa in 1951.

As a result of the appointment of a Lands Commission in 1947, land disputes in the Gilbert and Ellice Group have been settled. The project for the purchase and colonisation of the Line Islands at a cost of £135,000 has been dropped in favour of moving population from the Southern to the Central Gilberts. Christmas Island, where the Government have bought out the private company's interest and now run the plantation, is available for settlement. The scheme for the agricultural research station is still in the preliminary stage.

The main school building programme had not yet commenced by the end of 1951. The government has been operating a scheme for the sending of promising native students to Fiji and New Zealand for secondary education. The rebuilding of the Colony Hospital had not begun in 1951 but students were being sent to Fiji for medical training.

It is proposed to improve the Colony's navigational aids.

Other Development

No new private companies of any importance have commenced operations in the Colony since the war.

The missions and the Government are participating in a scheme for the training of mission teachers by which it is hoped to raise the standard of education in their central Training Schools. The B.P.C. scheme for training Gilbertese technicians is referred to on page 134. It is designed to replace Chinese and later Europeans by qualified natives.

NEW HEBRIDES

I. GENERAL BACKGROUND

Geographical Features

The New Hebrides lie between the 13 and 21 degrees of South Latitude, and the 166 and 170 degrees of East Longitude, and have an area of roughly 5,700 square miles. They include the Banks and Torres Groups, the former lying a few miles due north of the main group, and the latter about 40 miles to the north-west of the Banks, the whole forming an irregular double chain some 440 miles in length.

The largest islands of the Group are Santo and Malekula, the former having an area of approximately 1,500 square miles, and a coastline of about 200 miles. Both islands are mountainous and rugged, parts of Santo rising to over 6,000 feet. Other larger islands are Efate, Ambrym, Erromanga, Epi, Aoba, Pentecost and Maeovo, and Gaua and Vanua Lava of the Banks Group. There are also some 60 small islands and islets. The seat of government is at Vila, on the island of Efate. This is the only town in the Group.

The Group possesses four good harbours, Vila and Havannah Harbours situated on the island of Efate, and Ports Sandwich and Stanley on Malekula, besides a number of good sheltered anchorages.

The Group is generally well watered, partly mountainous, and well wooded. On the larger islands are several small rivers navigable by boats and small motor craft for a distance of some miles.

There are three active volcanoes, on the islands of Tanna, Ambrym, and Lopevi.

The climate is tropical with a hot season from November-April and a cooler season May-October. Temperatures on the island of Efate range from a minimum of about 60° in the cool season to a maximum of 92° in the hot season. Humidity in this season is very high. Annual average rainfall varies from 50 inches in the extreme south of the group to 200 inches in the extreme north.

Population

The population of the New Hebrides in 1950 was composed approximately of :—

New Hebridan Natives	45,000
British Nationals	340
British Ressortissants (including Chinese)	61
British Protected Persons	32
French Nationals	1,208
French Ressortissants (including Chinese)	44
French Protected Persons (Indo-Chinese coolies, including 731 Children) ..	1,853
Total	48,538

The natives are predominantly Melanesian with some admixture of Polynesian stock. Depopulation has occurred in the past but this trend has been arrested.

Social Amenities

Education

Education is not a joint service under the Protocol and is organised on national lines.

The French National Administration runs a free primary school for children of all races at Vila and supports a Franco-Annamite primary school. The French Catholic Mission maintains two similar free primary schools, one at Vila, one at Santo.

The British National Administration subsidises a primary school for British children and a primary school for native children, the latter run by the Presbyterian Mission, both at Vila.

There are no secondary schools in the Group.

Health

The main endemic diseases are tuberculosis, malaria, yaws, hookworm, tinea and conjunctivitis. Considerable mortality is also caused by influenza and whooping cough.

There is no Condominium Government full time medical service, but the French Administration maintains a National medical service, centred on three hospitals and one medical aid post, and the two British Missions (subsidised by the British Administration) maintain three hospitals between them and a network of aid posts. Other British Missions carry on medical work independently without subsidies.

Housing

Native houses are mainly huts covered with grass or leaves, with leaf or mat sides. In those near the town European materials are sometimes incorporated. The natives build their own houses subject, in Vila, to approval by the Sanitary Commission. Improvement in native building is taking place under the guidance of officials and missionaries. There are no housing schemes. European houses are mainly wooden or fibro structures with galvanised iron roofs.

Political Structure

The New Hebrides is an Anglo-French Condominium based on the Anglo-French Protocol, 1914. There are in effect three different administrations—a British and French Colonial Administration, each financed and controlled by the mother country concerned and each independently controlling and administering purely national affairs, bridged by a third, joint administration (the Condominium Government) dealing with and administering affairs necessarily of common interest (e.g., customs, posts, telegraphs, taxation, joint finance, land registration and survey, joint Condominium Courts, native administration).

At the head of each national administration is a Resident Commissioner representing the High Commissioner or Governor-General of his nationality for the Pacific Area. (The British High Commissioner is also High Commissioner for the Western Pacific and Governor of Fiji, and the French High Commissioner is Governor of New Caledonia and Governor-General for the French Pacific.)

A British and French agent stationed in each district are responsible to their respective Resident Commissioners for local administration.

The Condominium Government consists of two Resident Commissioners acting jointly in the organisation and administration of the joint services referred to above.

Principal Economic Legislation

Trade Tariffs

Duties are mainly *ad valorem* and there is no discrimination with respect to origin. The principal sources of revenue of the Condominium are seen to be Customs duties. The main features of the tariff in 1949 were :—

IMPORT DUTIES

Wines and Spirits under 15%	5% *ad valorem* (minimum 2s. 6d. per 220 litres in cash and 2d. per 75 centilitres in bottles).
„ „ „ „ 15–20%	12% *ad valorem* (minimum 5d. per 75 centilitres plus surtax of 2½d. per 75 centilitres).
„ „ „ over 20%	30% *ad valorem* (minimum 18s. per case and surtax of 5d. per 75 centilitres).
Tobacco, cigars and cigarettes	50% *ad valorem.*
Motor spirit and lubricating oils	10% *ad valorem.*
Timber, cement and sheet iron for building	10% *ad valorem.*
Watches, mechanical lighters, etc.	20% *ad valorem.*
Private cars	15% *ad valorem* and £16 on new or £9 12s. on second-hand cars.
Most other articles	15% *ad valorem.*

EXPORT DUTIES

Copra	4% f.o.b.
Trochus and other shells	5% f.o.b.
Sandalwood	5% f.o.b.
Timber (Kauri, etc.)	1s. per 100 super feet.
Cotton	1% f.o.b.
Cocoa	3% f.o.b.
Coffee	1% f.o.b.
Other items	1% f.o.b.

Labour

The employment of native labour, with respect to recruitment and treatment, is governed by the provisions of the Anglo-French Protocol. These include admissible methods of recruitment, safeguards against abuse, conditions of registration, treatment, repatriation, minimum pay, length of engagement, discipline and penalties for infringements.

Land Tenure

See section on Agricultural Conditions and Methods, below.

Communications and Transport

Shipping

Fairly regular services (five to eight weekly, and taking 11 to 15 days) are maintained between Sydney and the New Hebrides by small vessels of the Burns Philp and Messageries Maritimes lines. The Messageries Maritimes carries out an irregular service with semi-cargo vessels between Marseilles and Sydney (two months) calling at the New Hebrides in both directions. Calls are also made by the semi-cargo motor vessel " Thor " from San Francisco. There are periodic calls from cargo vessels to load copra for France.

There are a number of small vessels engaged in inter-island traffic in the Group.

Vila is the port of entry.

Air Services

Quantas maintains a fortnightly flying-boat service with New Caledonia and Sydney. From New Caledonia frequent air connections are available to Australia, Fiji and the United States.

Roads

There are approximately 336 miles of road of which 245 are all-weather roads.

A number of good roads made by the American forces exist on Efate and Santo. These are being extended, where economically desirable, by the Condominium Government. Other roads, of the track variety, exist on Efate, Santo, Tanna, Tongoa and Malekula and are maintained in principle as passable for motor vehicles. Many plantations have their own passable tracks which they maintain themselves. There are no railways in the Group.

Postal and Telecommunications

The main Condominium Post and Telegraph Office is situated at Vila with a sub-Post and Telegraph Office at Santo. Mails are carried to and from the New Hebrides by both sea and air. Surface mails are now limited almost entirely to second-class matter and parcels post. Airmails enter and leave the New Hebrides on an average once a week.

Only one telephone service exists, serving the town of Vila and outlying districts. The system is operated by a central manual exchange and the service is continuous.

The Condominium Government maintains a radio-telegraph station at Vila with a sub-station at Santo.

Direct radio-communication is maintained from Vila with Fiji, New Caledonia, Australia and the British Solomon Islands Protectorate, in addition to communications with ships and aircraft.

There is now a considerable and growing teleradio network in the Group, consisting of both official and private stations. Most of these stations are used for official and commercial inter-island telegrams and some of them for weather reporting. There is also a growing number of teleradio stations on small inter-island craft. All these stations communicate with or through Vila, but may inter-communicate by permission.

II. PRODUCTIVE ACTIVITIES

Agricultural Conditions and Methods

The total land area is 5,700 square miles. It is estimated that roughly half of this area is mountainous or covered with dense bush, and a quarter is pastoral land, and a quarter under cultivation in plantations of all kinds. The flatter coastal areas are fertile and suitable for growing most tropical, some semi-tropical and, in the south, non-tropical produce. Rainfall is generally abundant but long droughts have at times occurred. Because of the humidity and abundant vegetation, erosion is practically non-existent. The natives are largely a peasant population, growing a large proportion of their own food and also producing copra. There are also a number of non-native plantations devoted to copra, cocoa and coffee.

As the New Hebrides is not a territorial possession there are no Crown Lands. The land area of the group is held to belong to the natives until alienated. Land acquired from them requires to be registered by the Joint Court in the manner described in the Protocol. By Article 8 of the Protocol the English and French High Commissioners are empowered to codify native laws and customs but native land law is complex and has not been fully codified. It is based on clan and sub-clan ownership. If native land disputes cannot be settled by arbitration in the national courts they may be brought before the Joint Court if a District Agent so directs.

Of the total land area possessed (in the sense of effectively improved), 643,000 hectares are French, 74,800 British and 463,000 native.

There are no agricultural advisory services in the Condominium.

Local Food Products

Yam, taro, manioc, a number of indigenous leaf vegetables, nuts, oranges, grapefruit, limes, lemons, bananas, pineapples, custard apples and guavas grow well. All are consumed locally as there are no export markets. Cereals, mainly flour and rice, are all imported.

Livestock

There are cattle and pigs on nearly every island, many of them wild. They are used for cleaning plantations and to provide food for the labour employed. Pigs are also kept by native owners, the pig often being the unit on which " bride-price " is reckoned.

Butter, most eggs and some milk have to be imported.

A small quantity of wool is exported to Australia from the island of Erromanga which has a large plateau at 1,500-2,000 feet with an excellent climate for sheep.

It is estimated that there were 16,500 cattle, 555 horses, 29,000 pigs and 1,500 sheep and goats in the Group in 1948.

Cash Crops

Copra. The main cash crop is smoke-dried copra, practically all of which is exported to France. Native production in 1950 accounted for nearly half of the output, the remainder being produced on European plantations. Exports averaged between 10,000 and 11,000 tons pre-war but by 1950 had risen to 21,500 tons and 27,700 tons in 1951.

Cocoa and Coffee. Other export crops are cocoa and coffee which are produced on European plantations. The areas under cocoa and coffee in 1948 were approximately 3,935 hectares and 2,305 hectares respectively. Cocoa is sold mainly to France and Australia, and coffee mainly to France. Because of the labour shortage and the highly seasonal nature of the demand, cocoa production since the war has been neglected in favour of the more lucrative copra. (For table of principal exports, see page 148.)

All crops are marketed privately. There are no co-operative movements or marketing boards.

Forestry

The whole group is heavily wooded but although surveys how that many useful timbers exist (including softwoods of the balsa type) stands are generally far apart, too small and too difficult and costly for extraction. However, Kauri pine is commercially extracted and exported to Australia from the island of Aneityum and some commercial possibilities for extraction exist on Santo and Erromanga.

Fisheries

There is no fishing industry as such. The collection of trochus shell which is largely exported to France, has fallen off in recent years due to the relatively greater attraction of copra production.

Minerals

Traces of gold, platinum, coal, nickel and manganese have been found but there has been no systematic geological survey. There are deposits of sulphur on the Banks Islands, but attempts to exploit them have failed up to the present time.

Village Industries

A small plant was erected in 1948 at Vila for the manufacture of coconut fibre and dessicated coconut but later closed down. There are no village industries apart from the making of fibre mats, baskets, etc., by the natives for their own use.

Employment and Labour Supply

The chief occupations in the New Hebrides are, in order of importance, the cultivation of copra, cocoa and coffee, extraction of Kauri-pine, shell-fishing and market gardening. Employment is also found in inter-island shipping, trading, recruiting and stevedoring.

Labour may conveniently be divided into the following classes :—

(*a*) Native labourers engaged as hired men in the production of copra, cocoa, coffee, timber extraction, shell-fishing, inter-island shipping, trading, recruiting, stevedoring, and as household servants.

(*b*) Europeans and Asiatics employed on contract by the month or day, as artisans, navigators, store hands, etc.

(*c*) Asiatics and natives employed on plantations on a share basis.

(*d*) Salaried employees and Government servants of all races.

" Asiatics " consist mostly of the remains of the Indo-Chinese labour force imported before 1941 by the French Authorities and now awaiting repatriation.

The estimated numbers of natives employed in the main industries, monthly wages and hours of work in 1951 were :—

EMPLOYMENT AND WAGES, 1951

	Average number	*Wage*	*Hours per week*
Plantation Labourers	885	£A 10–14 per month (all found)	50
Domestic Servants (male)	1,500	£A 7–10 ,, ,,	60
(female)	500	£A 5–8 ,, ,,	60
(young persons)	100	£A 3–4 ,, ,,	60
Seamen	500	£A 8–15 ,, ,,	50
Storemen	n.a.	£A 10–18 ,, ,,	42
Stevedores	80–100	10s. to 14s. per day (with food)	48
Public Works Department (labourers)		£A12 per month (all found)	40

n.a.=Not available.

The employment of native labour is governed generally by the provisions of the Anglo-French Protocol as described previously. The employment of other categories is on a free-market basis according to the arrangement agreed to. There are no trade unions and there is no basic wage, but the demand for labour of all kinds during the last few years has been so much greater than the supply and trade has been so prosperous that wages have risen considerably.

The copra industry was built up chiefly by the importation by the French Authorities of Indo-Chinese labourers (at one time amounting to about 8,000). Those still remaining (now "free" workers mostly working on their own account as artisans, storekeepers, vegetable gardeners and on contract) are expected shortly to be repatriated, but to be replaced by an indefinite number of Javanese labourers imported by the same Authority. Production of copra might easily be doubled or even trebled given sufficient labour.

Fuel and Power

All power is derived from liquid imported fuel. There is no usable coal and no water power. There is an electric power company in Vila which uses diesel engines to generate current. The price was 2s. 0½d. per unit (Aust.) in 1950 plus meter rent and fixed charges.

Water Supplies

A scheme to supply Vila with a pumped water supply was completed in 1951.

III. FINANCE AND TRADE

Public Finance

Condominium

The financial provisions of the Protocol require (*a*) each of the two Governments to defray the expenses in the group of its own administration and (*b*) the expenses of the joint services (excluding police and the national staff of administrative Districts) to be financed from joint revenue with a contingent liability on the metropolitan government to make good any shortfall of revenue below expenditure. Condominium revenue is derived from import and export duties, licences, fines inflicted by Condominium courts; sales of stamps, telegraph charges, land registration and survey fees, land registry charges, etc. The Condominium Government has not imposed a joint income tax. Natives pay no direct taxes.

National Administrations

The provisions of the Protocol imply that taxation for financing the national administrations (as distinct from the Condominium) should not be imposed. However, each Government does, in fact, raise some "national" revenue from "national" taxes, e.g., income tax on British national officials imposed by the British Administration and immigration taxes and certificates of origin fees collected by the French Administration.

Revenue and Expenditure

(i) *Condominium*

Revenue and expenditure of the *Condominium Administration* since 1944 and estimates for 1952 are as follows :—

REVENUE AND EXPENDITURE CONDOMINIUM 1944–1952

	Revenue	*Expenditure*	*Surplus or Deficit*
	£ (*Sterling*)	£ (*Sterling*)	£ (*Sterling*)
1944	93,291	32,723	60,566
1945	78,154	68,940	9,214
1946	60,748	50,753	9,995
1947	83,080	49,092	33,988
1948	101,818	75,108	26,710
1949	187,705	109,216	78,489
1950	209,982	169,737	41,245
1951*	287,000	204,054	82,946
1952 (estimated) . .	363,000	424,000	−61,000

* Revised estimate.

The Condominium has budgeted for a deficit for a number of years with the object of financing a much needed public works programme, but owing to the inherent difficulties of the complex administrative structure and the shortage of materials, expenditure has remained consistently below the level planned. A deficit was budgeted for 1950 in the hope of completing this programme while suitable staff was still available but there was, in fact, a surplus. Estimated expenditure in 1952 includes expenditure of £100,000 on development projects.

The principal sources of revenue and the distribution of expenditure of the *Condominium Administration* in recent years were :—

SOURCES OF REVENUE OF CONDOMINIUM 1949-1951

	1949 (*Actual*)	1950 (*Actual*)	1951 (*Revised Estimate*)
	£	£	£
Posts and Telephone . .	11,019	7,204	4,488
Inland Revenue (Licences)	4,550	5,521	7,000
Ports and Harbour . .	1,502	1,857	1,800
Courts (fines and fees) . .	3,388	634	10,700
Import Duties	115,317	149,644	134,000
Export Duties	43,970	36,164	120,800
Radiotelegraph	4,229	5,038	5,150
Lands Registry	405	693	600
Miscellaneous	3,325	3,227	2,462
Total Revenue	187,705	209,982	287,000

PATTERN OF EXPENDITURE OF CONDOMINIUM 1949-51

	1949 (*Actual*)	1950 (*Actual*)	1951 (*Revised Estimate*)
	£	£	£
Joint Court	11,804	18,861	16,044
Constabulary	—	—	—
Treasury	4,210	4,943	7,206
Post and Telegraph . .	7,413	13,296	14,616
Public Works (Administration)	4,483	6,997	6,418
Public Works (Annually Recurrent)	26,873	44,631	39,817
Public Works (Extraordinary)	10,749	23,902	41,482
Ports and Harbour . .	420	660	1,273
District Administration . .	9,896	10,907	12,060
Medical	8,382	14,336	22,072
Customs Dept.	6,454	7,930	10,728
Radiotelegraph	8,244	11,088	12,778
Lands Dept.	1,388	1,709	1,370
Agriculture	—	—	—
Water Supply	—	8	—
Miscellaneous	8,900	9,469	18,190
	109,216	168,737	204,054

* Detailed breakdown is available only for revised estimates

Of total revenue from export duties over 92 per cent is derived from copra duty. This duty was two per cent on the f.o.b. value in 1948 but was raised to four per cent in 1949.

The estimated assets and liabilities of the Condominium as at 31-12-51 were :

ESTIMATED ASSETS AND LIABILITIES OF CONDOMINIUM AS AT 31-12-51

Liabilities		*Assets*	
	£		£
Trust A/C deferred Pay . .	6,000	Balance forward 1948	320,103
		Estimated Revenue over Expenditure 1949	82,946
Balance . .	403,049	Deferred Pay, etc. . .	6,000
	409,049		409,049

(ii) *British Administration*

The revenue and expenditure of the British Administration for a series of years has been :

REVENUE AND EXPENDITURE OF BRITISH ADMINISTRATION

	Revenue	*Expenditure*
	£A	£A
1938-39	80	9,342
1946-47	651	27,563
1947-48	2,700	27,563
1948-49	3,927	40,552
1949-50	3,112	41,774
1950-51	1,824	43,152
1951-2 (revised estimate)	2,240	49,936

The principal sources of revenue and pattern of expenditure in 1949-50 and 1950-51 were as follows :

ANALYSIS OF REVENUE AND EXPENDITURE OF BRITISH ADMINISTRATION

Expenditure			*Revenue*		
	1949-50	1950-51		1949-50	1950-51
	£A	£A		£A	£A
Establishment	21,145	23,357	Income duty	807	684
Transport	2,299	3,146	Fines, Fees, Licences..	1,189	161
Travelling (Govt. vessel)	1,034	—	Commission	37	9
Constabulary	6,820	5,887	Hire of Govt. vehicles	217	184
Medical	4,051	3,856	Rent of Quarters—Staff	862	786
Works	5,369	6,770	Other	—	—
Miscellaneous	1,056	1,146			
	41,774	43,152		3,112	1,824

(iii) *French Administration*

The estimates of revenue and expenditure of the French Administration in 1948 and 1949 were :

REVENUE AND EXPENDITURE OF FRENCH ADMINISTRATION

	Revenue (000 *New Hebrides frs.*)	*Expenditure* (000 *New Hebrides frs.*)
1948	*15,490	14,630
1949	*15,639	14,620

* Of which revenue from local sources was 6,700 francs in 1948 and 8,066 in 1949.

The principal heads of expenditure were :—

PATTERN OF EXPENDITURE OF FRENCH ADMINISTRATION

	1948	1949
	(000 *New Hebrides frs.*)	(000 *New Hebrides frs.*)
Loan charges	30	40
Administration	8,420	7,250
Public Health	3,570	4,600
Education	680	620
Works	920	870
Miscellaneous	1,000	1,240
	14,630	14,620

Currency and Banking

The Protocol states " English and French money and banknotes authorised by either Power shall be legal tender in the Group." However, the *de facto* currencies in circulation have for nearly 30 years been Australian currency and Bank of Indo-China (Noumea) notes.

In 1935, by an Exchange of Notes, Australian currency (with exchange, if any) was recognised by both powers as valid in the Group for payments in sterling. At the same time the fluctuating exchange rates between Sterling and French francs, as against the gold standard rates previously fixed by the Protocol, were recognised and the Resident Commissioners were authorised jointly to fix the official internal exchange rates. For reasons of convenience it was jointly agreed that the Condominium Budget should be in sterling, it being impossible to keep it in two fluctuating currencies.

In 1940, after the French Armistice, French (in this case, Bank of Indo-China, Noumea) francs ceased to have external convertibility and in 1941 the New Hebrides franc, convertible against an Australian currency fund, was devised by the de Gaulle Administration as a temporary expedient to solve the difficulty. Bank of Indo-China notes embossed with a Free French device thereupon became the sole " authorised " French currency in the New Hebrides, and, in practice, the New Hebrides became part of the sterling area.

In 1944, under the Anglo-French Financial Agreement, the French Empire was separated from the Sterling Area, but a special provision, while including the New Hebrides theoretically in the franc area, left it for practical purposes in the sterling area, where it has remained (in practice) ever since.

Under Sterling Area practice during the war the New Hebrides under the provisions of a Joint Defence (Finance) Regulation " specified " non-sterling currencies. The Regulation is still in force and, since departure of French territories from the sterling area, all French currencies except the New Hebrides francs (which are based on Australian currency) have been " specified."

N.B.—The exchange rate in 1948 was 200 New Hebrides francs to the £ sterling and 160 to the £A. In 1950 the rates were :—

£1 = 178 N.H. francs
£A = 142·4 N.H. francs

Under the same Regulation the Commonwealth Bank of Australia was appointed by the Resident Commissioners jointly as foreign exchange agent of the Condominium Government, particularly in respect of receipt and payments of American dollars.

There were no banks in the New Hebrides up to 1948 when the Bank of Indo-China opened a branch at Vila. In 1950 an agency for the Commonwealth Savings Bank of Australia was opened. Many residents continue their former practice of using local commercial houses as unofficial bankers, or banking in Sydney or Noumea.

Private Investment

As a result of the high copra prices ruling there has been an increase in the number of traders operating in the islands. Further expansion is limited by scarcity of labour.

Cost of Living

There is no detailed information on changes in the cost of living but substantial increases have occurred since 1939. One estimate puts the increase in the cost of living in 1950 at 200-240 per cent above 1939 levels.

Balance of Trade

The value of Imports and Exports for a series of years has been :

EXTERNAL TRADE, 1938-39 TO 1950

	Imports	*Exports*
	£ sterling	*£ sterling*
1938-9	111,867	120,211
1945	227,049	280,021
1946	335,680	235,486
1947	400,404	988,403
1948	519,002	1,498,150
1949	804,806	1,172,796
1950	527,984	1,419,004

The principal imports and exports were :

PRINCIPAL EXPORTS OF NEW HEBRIDES

	1938		1947		1948		1950	
	Quantity metric tons	*Value £ sterling*	*Quantity metric tons*	*Value £ sterling*	*Quantity metric tons*	*Value £ sterling*	*Quantity metric tons*	*Value £ sterling*
Copra ..	11,448	74,921	20,405	865,602	21,543	1,397,172	21,569	1,265,372
Cocoa ..	1,893	28,332	900	80,332	553	91,111	630	119,821
Coffee ..	627	12,876	354	35,002	39	3,670	153	18,217
Hides ..	43	357	316	1,197	32	2,373	44	2,654
Trochus ..	59	1,231	37	1,194	34	3,202	52	3,971
Coconuts	61	209	277	3,050	36	540	—	—
Kauri Pine	—	—	655	1,310	—	—	†	6,000‡
Wool ..	5	331	1	54	—	—	11	5,483
Cotton ..	28	495	8	456	—	—	—	—

* 504,987 super feet. † 307,251 super feet. ‡ Estimated

PRINCIPAL IMPORTS

		1947		1948		1950	
		Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
			£S		£S		£S
Flour	bags	4,525	29,994	6,540	28,072	6,721	14,725
Rice	metric tons	780	24,336	971	31,363	956	63,081
Milk	cases	2,790	3,920	4,794	7,786	2,054	4,230
Sugar	bags	14,202	13,144	9,266	9,438	10,892	13,870
Tea	lb.	28,830	5,371	18,818	3,880	26,251	5,270
Preserves	cases	10,770	22,302	8,642	16,921	N.A.	N.A.
Ships Biscuits	lb.	162,780	4,209	68,000	3,971	197,126	8,184
Wine (in barrels) ..	litres	460,100	33,673	224,818	4,700	N.A.	N.A.
Cigarettes	..	—	4,130	—	9,125	N.A.	8,234
Tobacco	lb.	51,100	6,276	15,444	4,307	18,815	8,635
Soap	lb.	9,066	266	77,896	4,942	1,262	2,307
Petrol	gallons	136,400	10,690	255,878	20,470	189,536	14,374
Lubricating Oil ..	,,	19,752	5,022	16,102	3,820	116,147	16,470
Kerosene	,,	111,072	8,780	144,337	10,104	104,664	10,647
Combustible Oils ..	..	90,478	8,714	235,245	18,820	N.A.	N.A.
Cement	metric tons	288	1,325	154	783	54	309

Of the total imports in 1948 56 per cent came from Australia, 15 per cent from France, 20 per cent from the U.S.A. and two per cent from the United Kingdom.

The destinations of the principal exports in 1948, 1949 and 1950 were :—

DIRECTION OF TRADE 1948 AND 1949

		1948	1949	1950
		£'000 (*sterling*)	£'000 (*sterling*)	£'000 (*sterling*)
Copra ..	France	1,397·2	956·1	1,130·7
	Canada	—	78·9	—
	Denmark	—	—	133·8
Cocoa ..	Australia	54·2	32·8	42·6
	France	14·1	56·4	77·2
	U.S.	22·7	—	—
Coffee ..	France	2·5	20·7	17·6
	Australia	1·2	—	0·6
Hides ..	Australia	2·4	3·5	2·6
Trochus ..	France	3·2	3·0	2·7
Kauri ..	Australia	—	16·7	6·0
Wool ..	Australia	—	—	5·4

— = negligible

IV. DEVELOPMENT

The economy of the Group is based purely on tropical agriculture and no development is possible without an adequate labour supply, which can only be supplied from outside. Agriculturally speaking, the Group is potentially very rich, having excellent soil, sufficient rain and much good, unexploited land available. On the other hand, the best agricultural lands are mostly malarious.

The Government Development Plan envisages expenditure of £345,000, mainly on wharves at Vila and Santo. It was expected that construction would commence in 1952 with an estimated expenditure of £100,000. It is proposed to increase taxation to meet these costs. Development expenditure outside the plan includes expenditure on public works and the improvement of medical services.

V. MISCELLANEOUS

Weights and Measures. The British and French systems of weights and measures are both employed in the Group.

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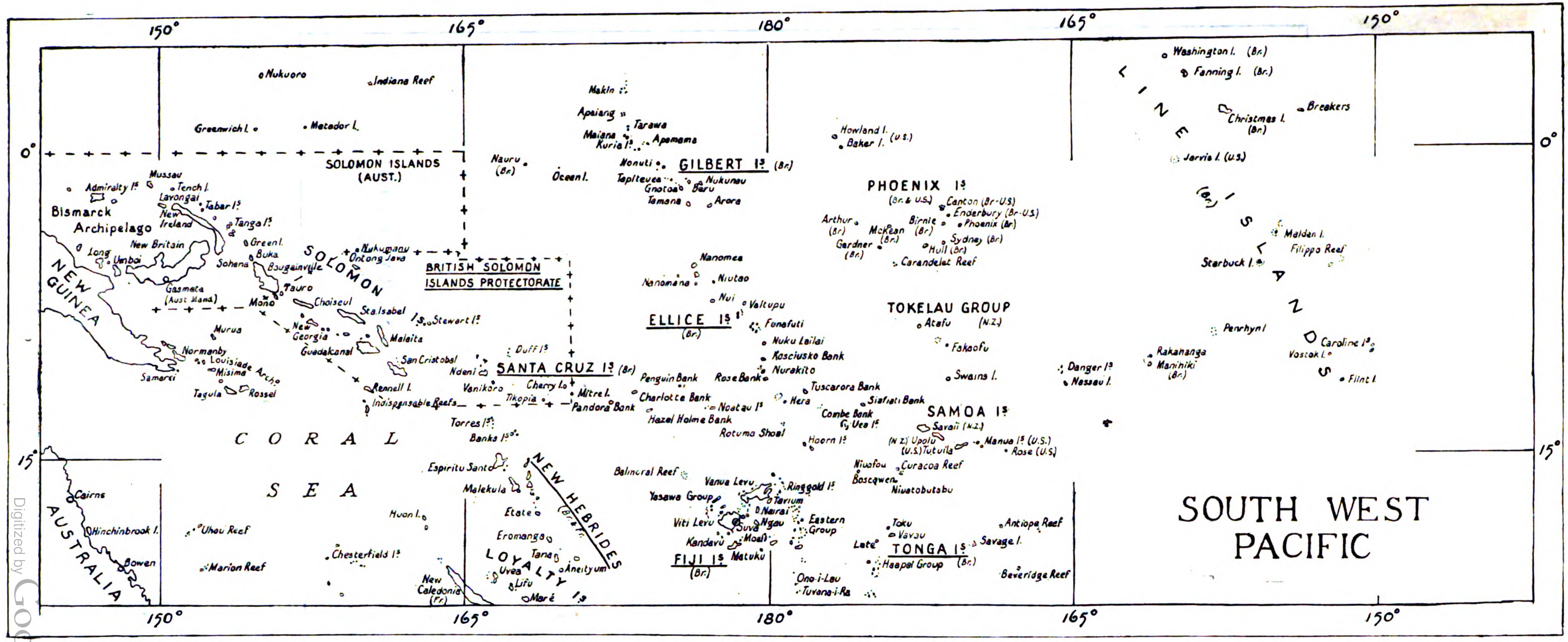

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THE PRODUCTS OF THE COLONIAL TERRITORIES

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PREFACE

Before the war the Colonial Office published, at approximately yearly intervals, a survey in which were assembled the main facts about the economic situation of the Colonial territories. The last of these, relating to the year 1937, was issued in 1940 (" An Economic Survey of the Colonial Empire (1937) " Colonial No. 179), after which their publication was suspended. In the meantime there has been a very considerable increase both in popular interest in the affairs of the Colonial territories and in the emphasis laid on Colonial development. It is therefore felt to be appropriate that the ready source of statistical and other relevant information which the survey provided should once again be made available.

The new edition of the survey is being published, not in a single volume as before, but in a series of seven volumes, six of which contain memoranda describing the economic features of each of the Colonial territories in turn, grouped for convenience as follows :—

Volume I.—The Central African and High Commission territories (Northern Rhodesia, Nyasaland, Basutoland, Bechuanaland and Swaziland).

Volume II.—The East African territories (Kenya, Uganda, Tanganyika, Zanzibar and the Somaliland Protectorate) with Aden, Mauritius and Seychelles.

Volume III.—The West African territories (Nigeria, the Gold Coast, Sierra Leone and the Gambia), with St. Helena.

Volume IV.—The West Indian and American territories (Jamaica, Trinidad, Barbados, British Guiana, British Honduras, the Leeward Islands and the Windward Islands, with the Bahamas, Bermuda and the Falkland Islands).

Volume V.—The Far Eastern territories (the Federation of Malaya, Singapore, Hong Kong, North Borneo, Sarawak and Brunei).

Volume VI.—The Mediterranean and Pacific territories (Cyprus, Gibraltar, Fiji, the Gilbert and Ellice Islands, the Solomon Islands, Tonga and the New Hebrides). This volume also includes a chapter on the economic situation of Malta.

An endeavour has been made to prepare the memoranda of which the above volumes are composed on uniform lines, so that the same essential facts may be given for each Colonial territory. The main headings under which the information in each is classified are as follows :—

(1) **General Background**

Geographical and climatic features ; population ; social amenities ; political structure ; principal economic legislation ; communications and transport.

(2) **Productive Activities**

Agricultural conditions and methods ; local food products ; cash crops ; forestry ; fisheries ; minerals ; manufactures ; village industries ; other industries ; co-operative movements ; employment and labour supply ; fuel and power (including water).

(3) **Finance and Trade**

Public finance ; currency and banking ; private investment ; national income ; standard and cost of living ; balance of trade.

(4) **Development**

Government activities and plans ; other development proceeding or planned.

(5) **Miscellaneous**

Miscellaneous information not covered by the preceding headings.

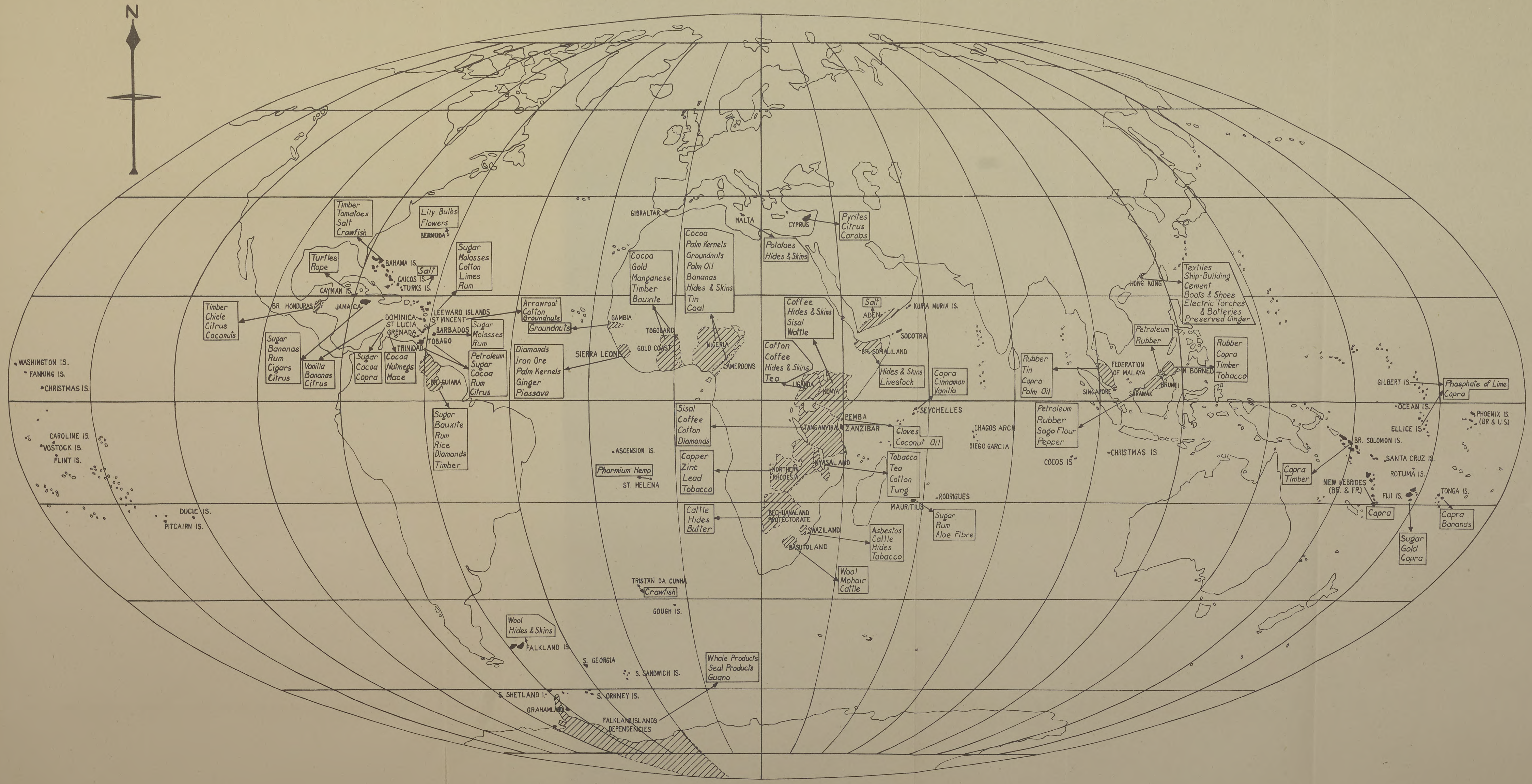
Volume VII contains a series of memoranda dealing in greater detail than elsewhere with the commodities produced in the Colonial territories as a whole, both those which are intended for export and those which are retained for domestic consumption, together with certain other general and statistical information.

The component volumes of the survey are not being published simultaneously or necessarily in the order indicated above, but as and when the material for each is ready for presentation.

In each case the volume will contain information covering the period from 1938 up to the latest year for which it is available. The present volume includes, so far as practicable, information available in the Colonial Office during 1951.

While every care has been taken in compiling the Survey, the Secretary of State cannot be responsible for the accuracy of any of the individual facts and figures in its contents, many of which are derived from sources outside the Colonial Office.

MAIN PRODUCTS OF THE COLONIAL TERRITORIES



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VOLUME VII. THE PRODUCTS OF THE COLONIAL TERRITORIES

This volume of the *Economic Survey* describes the principal products of the Colonial Territories, and contains details of these products as well as a series of tables showing the level of exports both before and since the war. It therefore corresponds to Part II of the 1937 edition of the Survey, and roughly follows the same order as that part.

In the introductory remarks to the section on commodities in the 1937 Survey, it was stated :

> "The Dependencies which make up the Colonial Empire are still in that state of development in which the principal, and in most cases the only, occupation of their inhabitants is primary production. The only Dependencies in which there is any substantial production of manufactured goods are Hong Kong, the Straits Settlements, and Palestine, but even in these Dependencies industrial production is not the principal occupation of the inhabitants." (Page 549.)

Although these remarks are still roughly true, there has been a considerable development of secondary industries in certain territories since the war—especially in Hong Kong, Kenya and some of the West Indian Territories, and the policy of Colonial governments has been increasingly directed towards assisting the development of such industries both by means of special legislation and through administrative, technical and financial aids. Details of industrial development will be found in the volumes of this Survey devoted to particular territories. This volume contains information where appropriate relating to canning and processing industries, but does not give an account of manufacturing industries.

The following tables compare pre-war and post-war exports of the main commodities produced in the Colonial Territories in order of their importance by value in 1949. The pre-war figures omit exports from Ceylon and Palestine, and are therefore not strictly comparable with the figures in the similar table on page 550 of the 1937 edition of the *Economic Survey*. The commodities mainly affected by this omission are tea, copra and citrus fruits.

The chart attached opposite page 6 shows the volume of exports of these principal commodities since the war as a percentage of their average exports in the years 1937-39. As the chart shows, exports of most of these commodities have been at a higher level since than before the war, and there was a generally rising trend in the volume of exports during the years 1947-50. The largest percentage increases among the commodities shown were for bauxite, asbestos, rum, petroleum and timber. The most marked falls were in bananas, cotton seed and iron ore. Generally speaking, there has been little change in the order of importance of the principal commodities since before the war, although certain products, such as pineapples, phosphates of lime and desiccated coconut, which were included in the general table of the 1937 Survey, are no longer of sufficient importance to be included in the present table, while others, such as lead and asbestos, which were either not produced at all before the war or were of only small importance, have now come into the thirty principal products of the Colonial Territories.

VALUE OF PRINCIPAL PRODUCTS EXPORTED FROM THE COLONIAL TERRITORIES (EXCLUDING RE-EXPORTS)

£

	1938	1939	1946	1947	1948	1949	1950 *Provisional*
Rubber	23,386,582	30,669,021	44,638,005	70,999,700	82,495,941	76,703,626	237,300,000
Cocoa	6,820,121	7,321,042	13,810,622	28,624,278	62,935,430	50,437,068	71,919,000
Tin	12,828,767	20,760,565	5,468,539	16,825,880	29,349,638	36,746,500	59,540,000
Petroleum	6,153,177	6,730,362	9,135,967	18,768,169	32,444,866	35,946,141	n.a.
Sugar	8,728,838	10,142,542	17,005,289	21,644,121	27,298,404	32,225,719	34,556,000
Copper	9,623,966	9,646,815	10,377,457	18,668,648	25,271,962	29,550,090	44,800,000
Cotton	4,412,768	3,719,814	6,798,514	8,842,062	9,930,400	21,758,038	22,039,000
Groundnuts	1,588,337	1,356,432	6,325,123	7,677,983	11,725,685	20,671,515	17,299,000
Palm Kernels	2,731,743	2,428,701	5,286,195	11,049,351	13,620,831	19,727,117	20,590,000
Palm Oil	1,733,450	1,636,716	2,527,184	7,511,347	12,814,795	16,587,753	15,238,000
Sisal	1,890,129	1,702,538	4,816,562	6,869,231	11,399,418	14,051,834	16,023,000
Gold	7,897,357	10,048,891	7,093,965	6,899,295	7,656,608	8,654,755	n.a.
Coconut Oil	676,323	859,605	860,614	3,624,895	6,396,075	7,913,272	8,916,000
Hides and Skins	1,216,898	1,390,103	2,919,924	5,885,120	6,150,006	7,088,946	11,383,000
Coffee	1,636,650	1,878,238	3,603,553	4,103,303	6,329,121	6,150,976	n.a.
Copra	1,508,172	1,212,554	1,063,400	3,091,014	3,844,013	5,361,096	8,063,000
Tobacco	568,680	556,031	1,899,244	2,219,888	3,401,836	4,544,183	n.a.
Timbers (Hardwoods) ..	478,618	376,686	1,925,034	3,128,890	4,329,757	4,408,079	10,447,000
Bananas	3,362,535	2,855,425	1,746,120	2,798,886	3,809,590	4,398,279	n.a.
Manganese	941,030	826,350	2,264,715	2,230,039	2,698,706	4,006,132	5,007,000
Diamonds	1,488,259	1,209,606	2,384,104	2,661,712	3,215,934	3,745,901	n.a.
Rum	379,301	383,349	3,056,878	4,009,633	4,103,751	3,503,207	n.a.
Bauxite	420,890	601,952	1,628,670	1,708,772	2,241,405	2,776,806	3,105,000
Timbers (Softwoods) ..	557,927	576,757	789,434	1,301,614	1,655,351	2,447,137	n.a.
Tea	975,849	921,302	1,448,351	2,062,246	2,290,447	2,185,040	n.a.
Iron Ore	1,504,782	1,718,646	546,104	567,484	938,853	1,780,815	n.a.
Citrus (Fruits, Fruit Juices and Pulp)	404,954	354,744	939,914	1,115,308	1,743,462	1,761,561	n.a.
Asbestos	88,291	212,611	1,208,161	1,106,324	1,371,000	1,744,281	n.a.
Pepper	78,970	156,958	775,065	2,110,524	948,248	1,634,736	n.a.
Lead	—	—	279,625	1,137,148	1,296,839	1,245,443	1,462,000
Cotton Seed	353,624	246,401	133,263	107,704	78,071	1,239,092	1,214,000

N.B.—Pre-war figures exclude Palestine and Ceylon.

Figures used for Malaya are net exports (i.e. exports less imports).

n.a. = not available.

VOLUME OF PRINCIPAL PRODUCTS EXPORTED FROM THE COLONIAL TERRITORIES (EXCLUDING RE-EXPORTS)

Commodities	*Unit*	1937	1938	1939	*Average* 1937-39	1947	1948	1949	1950 (*Provisional*)
Rubber	Tons	513,506	404,044	418,074	445,208	700,270	749,453	746,499	753,237
Cocoa (Raw)	,,	358,537	388,585	410,611	385,911	300,882	320,786	379,217	356,399
Tin (Metal Content)	,,	104,425	69,494	92,262	88,727	42,282	56,123	64,137	90,346
Petroleum	,,	2,709,210	3,154,759	3,315,382	3,059,784	4,822,327	6,237,054	7,382,647	8,011,027
Sugar	,,	1,050,223	989,578	1,017,962	1,019,254	965,530	1,042,548	1,232,415	1,181,022
Copper (Metal Content)	,,	218,583	246,826	227,246	230,885	198,371	230,626	264,248	308,328
Cotton (Raw)	Centals	1,967,716	2,080,068	1,789,333	1,945,706	1,352,083*	1,094,778*	2,085,494	1,905,812
Groundnuts	Tons	398,184	217,430	188,170	267,928	301,760	301,942	425,319	357,043
Palm Kernels	,,	431,322	391,030	385,278	402,543	387,901	408,647	465,780	501,522
Palm Oil	,,	191,347	166,355	187,299	181,667	170,099	188,719	229,119	225,843
Sisal Fibre and Tow	,,	123,686	131,362	124,829	126,626	120,929	149,105	167,087	155,876
Gold	Fine Troy Ozs.	867,600	1,110,000	1,305,700	1,094,433	801,100	896,700	882,000	930,000
Coconut Oil	Tons	41,240	50,523	63,222	51,662	52,675	60,230	79,173	76,128
Hides and Skins	Cwts.	414,944	354,622	381,557	383,708	468,059	468,010	488,589	635,700
Coffee (Raw)	,,	901,077	1,000,760	1,108,036	1,003,291	975,147	1,310,558	930,673	n.a.
Copra	Tons	209,761	200,899	163,533	191,398	90,750	82,655	110,229	114,404
Tobacco (Manufactured)	lbs.	17,143,497	17,124,252	16,800,637	17,022,795	27,078,394	34,463,754	36,370,501	n.a.
Timber (excluding Mangrove poles and firewood)	000 cu. ft.	14,332	10,495	10,796	11,874	16,364	21,029	24,673	33,670†
Bananas	Tons	544,582	483,128	395,971	474,560	122,208	163,516	186,814	n.a.
Manganese	,,	561,060	354,777	369,150	428,329	588,919	629,973	741,069	711,367
Diamonds	Carats	2,517,360	2,066,434	1,666,843	2,083,546	1,440,153	1,522,688	1,666,238	1,678,393
Rum	000 galls	2,444	2,197	2,173	2,271	7,566	8,171	9,063	n.a.
Bauxite	Tons	300,707	376,368	476,013	384,363	1,386,265	2,004,119	1,902,663	1,698,365
Tea	000 lbs.	18,355	20,103	22,011	20,156	25,941	24,385	21,994	n.a.
Iron Ore	Tons	2,173,187	2,393,684	2,773,725	2,446,865	618,750	995,909	1,436,480	1,663,520
Citrus Fruits (Oranges, Limes and Grapefruit) and Citrus Pulp	Cwts.	570,540	697,674	553,127	607,114	529,297	863,994	876,113	n.a.
Asbestos	Tons	11,709	5,578	14,314	10,534	32,182	36,941	41,426	44,638
Pepper	Cwts.	60,011	60,260	93,821	71,364	179,346	58,856	38,417	n.a.
Lead	Tons	—	—	—	—	16,124	14,999	12,855	13,880
Cotton Seed	,,	130,276	139,318	96,713	122,102	21,893	11,200	64,307	71,461

n.a. = not available.

* Excludes Leeward Islands. Quantities not available.

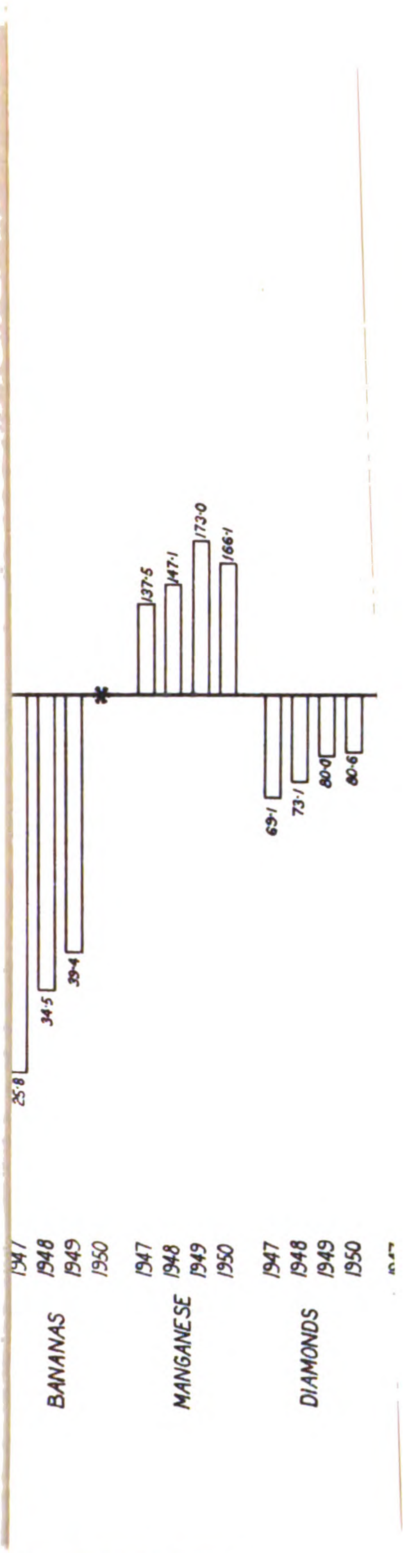
† Hardwoods only.

N.B.—Figures included for Malaya are net exports (i.e., exports less imports). Pre-war figures exclude Palestine and Ceylon.

ANIMALS AND ANIMAL PRODUCTS

Except for a valuable export trade in hides and skins worth over £5 million a year, animals and animal products are not at present exported to any appreciable extent from Colonial territories. The ever-increasing demand for meat and animal products for a growing human population has meant that there has not been any surplus for export. But animal husbandry is of great and increasing import-

certain of the East and Central African territories if large areas of potential cattle country now infested with tsetse can be reclaimed for cattle rearing and ranching. With this end in view surveys of such areas are contemplated in Tanganyika and Nyasaland and ranching schemes are being considered in Tanganyika, but the difficulty of rinderpest will still have to be overcome. Since the



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PIGS AND PIG PRODUCTS

There is at present very little export trade in pigs or pig products from the Colonies, although in many of them large numbers of pigs are reared for local consumption. Conditions in East and Central Africa and in

	1949	1950 (*Provisional*)
Rubber	746,499	753,237
Cocoa (Raw)	379,217	356,399
Tin (Metal Content)	64,137	90,346
Petroleum	382,647	8,011,027
Sugar	232,415	1,181,022
Copper (Metal Conten	264,248	308,328
Cotton (Raw)	085,494	1,905,812
Groundnuts	425,319	357,043
Palm Kernels	465,780	501,522
Palm Oil	229,119	225,843
Sisal Fibre and Tow	167,087	155,876
Gold	382,000	930,000
Coconut Oil	79,173	76,128
Hides and Skins	488,589	635,700
Coffee (Raw)	930,673	n.a.
Copra	110,229	114,404
Tobacco (Manufactur	370,501	n.a.
Timber (excluding Ma	24,673	33,670†
Bananas	186,814	n.a.
Manganese	741,069	711,367
Diamonds	566,238	1,678,393
Rum	9,063	n.a.
Bauxite	902,663	1,698,365
Tea	21,994	n.a.
Iron Ore	436,480	1,663,520
Citrus Fruits (Orang		
Citrus Pulp	376,113	n.a.
Asbestos	41,426	44,638
Pepper	38,417	n.a.
Lead	12,855	13,880
Cotton Seed	64,307	71,461

ANIMALS AND ANIMAL PRODUCTS

Except for a valuable export trade in hides and skins worth over £5 million a year, animals and animal products are not at present exported to any appreciable extent from Colonial territories. The ever-increasing demand for meat and animal products for a growing human population has meant that there has not been any surplus for export. But animal husbandry is of great and increasing importance to the internal economy of many territories and in some cases there are certain possibilities of exports. In most African territories reliance is placed almost entirely on the local livestock industry for meat supplies, and the consequent need for developing this industry, the potentialities of which are considerable, is being more and more emphasised. In Jamaica beef and dairying, particularly the latter, are important industries and in Fiji, also, dairying is an established industry. In British Guiana the keeping of cattle is widely practised.

CATTLE AND BEEF

In East Africa, the three High Commission territories, and the Northern Provinces of Nigeria much of the livestock is in the hands of purely pastoral tribes, although each year sees more and more livestock kept by agriculturalists on a more or less mixed farming basis. For example, in the Eastern Province of Uganda, which is essentially a cotton-growing area, the production of slaughter stock for sale to the large Buganda markets forms an essential part of the economy of the peasant farmer.

Recent Government estimates of the cattle population of the main African territories are :—

Tanganyika	6,385,000
Kenya	5,540,000
(about 5,000,000 African owned and 540,000 owned by Europeans)	
Uganda	2,485,000
Nyasaland	267,000
Northern Rhodesia	805,000
Bechuanaland	1,000,000
Nigeria and Cameroons	5,000,000
Gold Coast	350,000
Sierra Leone	60,000
Gambia	100,000

It is, however, very difficult to obtain accurate figures, and these estimates must be regarded at best as only very approximate.

There is a certain amount of inter-territorial trade in cattle, and in some territories there is a substantial internal trade. In particular Bechuanaland exports cattle to Northern Rhodesia, and Basutoland and Swaziland export cattle to the Union of South Africa ; in Nigeria it is estimated that some 700,000 head of cattle mainly from the Northern Provinces are moved annually for slaughter to the Southern Provinces.

With the rapidly increasing control of the major livestock diseases, the development of the cattle and beef industry depends largely upon a changed attitude towards animal husbandry on the part of cattle owners. Improved methods of animal management, control of grazing, and in some cases de-stocking, are necessary. Incentives must be found to induce nomadic cattle owners to settle and to dispose of their surplus stock. Markets must be further improved and extended in order to encourage and facilitate the cattle trade.

Up to the present there has been virtually no export of beef from Colonial territories, the unsatisfied demand for beef for local consumption and the disease factor making the export of carcass beef impracticable. In 1949 however the possibility of exporting beef from African Colonial territories to the United Kingdom was investigated and it was considered that in the very long term there are prospects of developing a beef exporting industry in certain of the East and Central African territories if large areas of potential cattle country now infested with tsetse can be reclaimed for cattle rearing and ranching. With this end in view surveys of such areas are contemplated in Tanganyika and Nyasaland and ranching schemes are being considered in Tanganyika, but the difficulty of rinderpest will still have to be overcome. Since the danger of rinderpest being carried in carcass beef cannot be entirely eliminated it has been stipulated that only carcass beef from non-immunised cattle reared in rinderpest-free areas can be imported into the United Kingdom and as yet it is not possible to satisfy such conditions in the main stock producing areas of much of Africa.

While rinderpest may be a bar to the export of carcass beef, it does not prevent the export of canned beef and there is a possibility of an export industry in canned beef being developed in East Africa. A meat canning factory with a normal capacity of 60,000 head of cattle per annum has been in operation near Nairobi since 1938, and a similar factory has recently been started in Tanganyika with a capacity of up to 100,000 head of cattle per annum.

The Colonial Development Corporation has recently initiated schemes for large-scale ranching operations in Bechuanaland and Swaziland.

In the West Indies, a conference was held in 1950 by the Caribbean Commission, at which recommendations were made for the extension and improvement of the livestock industry in the area. Both Governments and private individuals in the West Indies have recently done much to raise the standard of herds by the importation of good breeding stock and by the improvement of pastures.

SHEEP AND GOATS

Sheep and goats are kept in considerable numbers in Africa and vast numbers are slaughtered annually for food. In Kenya good quality cross-bred mutton is produced for local consumption. In the Somaliland Protectorate the rearing of goats and sheep (and the export of skins) is the only important industry, and in 1950 92,000 head of sheep and 26,000 head of goats were exported, mainly to Aden. There is a small trade in mutton from Somaliland to neighbouring territories ; the possibility of developing an export trade in mutton by the installation of a refrigerating plant is being investigated.

Sheep are also the principal economic asset of the Falkland Islands. The Colonial Development Corporation is taking steps to set up a refrigerating plant in the Colony, which will make it possible to utilise surplus carcass mutton and beef which the local market cannot absorb. Since sheep and cattle in the Islands are killed primarily for their wool and hides respectively, there are considerable quantities of carcass meat available for export.

Large numbers of sheep and goats are kept in Cyprus, many of them being allowed to range freely over the hill pastures. Owing to the danger of erosion, especially as a result of depredations by goats, villagers are being encouraged to eliminate the free-range goats in favour of keeping intensively fed tethered goats, and under the Goats Law the majority of inhabitants of a village may vote to eliminate free-ranging goats from their pasture areas. Many villages have availed themselves of this right, and it is hoped that more will follow.

PIGS AND PIG PRODUCTS

There is at present very little export trade in pigs or pig products from the Colonies, although in many of them large numbers of pigs are reared for local consumption. Conditions in East and Central Africa and in

Northern Nigeria are suitable for pig rearing, but except at present in Kenya, feeding stuffs—mainly coarse grains—cannot be made available for really large-scale production without competing with other essential crops. In Kenya some 50,000 carcasses a year are produced, and negotiations were completed in May, 1950, under which the United Kingdom agreed to purchase pig meat (bacon) from the Kenya Pig Industry Board. Bacon and ham are manufactured both for the local market and for export to other East and Central African territories. Bacon is also manufactured on a smaller scale in Tanganyika. In Nigeria large numbers of pigs are reared for local consumption and a Government-operated bacon factory has been in operation since 1940.

North Borneo, whose livestock was greatly diminished during the Japanese occupation, has recently resumed the export of pigs to Singapore. Pigs are reared for the local market on a fairly large scale in Cyprus and the possibility of developing an export trade in pig products is under investigation.

DONKEYS AND MULES

There is a considerable export trade in these animals from Cyprus, the principal markets being in the Middle East.

HIDES AND SKINS

Cattle hides (including calf skins) and sheep and goat skins are exported from a number of Colonial territories, but the export trade reaches significant proportions at present only in Kenya, Uganda, Tanganyika, Nigeria and the Somaliland Protectorate. The Somaliland trade is almost entirely in sheep skins. A few Colonial Territories, principally Nigeria, Malaya and Nyasaland, have an export trade in reptile skins, and Nigeria also exports leopard skins.

Efforts have been made in recent years to improve the quality of hides and skins exported. Attention has been directed in particular to the prevention of damage by careless flaying, the replacement of ground-drying by suspension-drying and the elimination of delays between flaying and drying. Considerable improvements in flaying and drying methods have been achieved in Nigeria. In East Africa progress has been slower than in Nigeria, but the figures for hides and skins exported from Kenya and Uganda in recent years show a marked increase in suspension-dried as against ground-dried products. In Tanganyika and Nigeria officers have been appointed as instructors in improved methods of flaying and drying, and a mobile demonstration unit has been started in Nigeria.

The hides and skins exported from Africa are sun-dried on the ground, or suspension-dried in sun or shade. No salting is practised. Tanning of sheep and goat skins has been undertaken from ancient times in the cities and villages of Northern Nigeria, and the products of this industry, of particular value as bookbinding leather, have a good export market. East Africa has a small industry of tanning hides and skins for local use. It is capable of improvement, and certain classes of leather might then find an oversea market. In 1949 the East African Hides Tanning and Allied Industries Advisory Bureau was set up under the East Africa High Commission to advise on all matters relating to this industry.

Somaliland's exports of hides and skins, valued at over £423,000 in 1950, represent about 60 per cent of the territory's total exports. About one and a half million skins were exported in 1950, including 777,000 sheep skins, which enjoy a high reputation abroad as a glovers' skin. Most of them are exported to the United States, the bulk of the remainder being taken up by the United Kingdom and India. Somaliland skins, like those of neighbouring countries, are traded via Aden, which is a great entrepot and transhipment centre for hides and even more for skins.

The last war radically changed the pattern of the Colonies' trade in hides. Until 1939, although the United Kingdom was an important market for Colonial hides and skins, there was a considerable export to other countries. During the war, however, it became necessary to direct all exports of East and West African hides to the United Kingdom, and United Kingdom tanners were obliged to use East and West African hides in place of those of other origins. They became accustomed to African hides and it is expected that they will continue to import a considerable proportion of the output of the Colonies. They appreciate the considerable improvement in preparation which has taken place in recent years. In 1950 African hides imported into the United Kingdom amounted in value to over £5¼ million out of a total import of hides and skins amounting to approximately £49¼ million.

The trade in skins was also regulated from time to time during the war. The United States and the United Kingdom are at present the main consumers of Colonial skins.

WOOL

Wool is not an important Colonial product. It is almost the only commodity exported from the Falkland Islands (excluding dependencies), but exports, between 4,000,000 and 5,000,000 lb. in recent years, represent only about 0·1 per cent. of world exports.

Sheep's wool, and to a smaller extent mohair (the wool from the Angora goat), is also one of the more important exports from Basutoland, accounting in recent years for between one-half and four-fifths in value of total exports. Exports in 1949 were 9,708,000 lb. of sheep's wool and 1,882,000 lb. of mohair, all exported to the Union of South Africa.

Smaller quantities of wool are exported from Cyprus and Kenya (exports in 1950 were about 2,479,000 lb. and 1,186,500 lb. respectively).

DAIRY PRODUCE

Although there are dairy industries in a number of Colonial Territories, the output from most of them is relatively small, and Colonial Governments are endeavouring where possible to extend the practice of dairy farming. The primary object is to reduce imports of dairy produce, which in many territories are considerable, particularly of condensed or otherwise processed milk, but dairy farming is also encouraged as a means of promoting a balanced system of agriculture.

In East and Central Africa, where the potentialities for dairying are greatest, dairy products (with the exception of ghee) are produced mainly by European farmers. In Kenya in particular, dairy farming by Europeans has long been important, and a substantial export trade in fresh and tinned butter has been established. In 1950, about 11,000 cwt. of butter were exported to many countries in Africa and the Middle East, Tanganyika and the Rhodesias taking the largest quantity.

Butter is also one of the more important commodities produced for export in Bechuanaland and Swaziland, the principal market being the Union of South Africa. It is also produced at Vom in Northern Nigeria for use throughout Nigeria.

Cheese is manufactured on a small scale in several territories. It is exported from Kenya mainly to Tanganyika, and small quantities are also exported from Cyprus.

Ghee (clarified butter) is an important local food for Africans. The principal producing territory in East Africa is Tanganyika, which exports part of its production to Kenya and Uganda. Somaliland also exports small quantities mainly to the Middle East. A scheme to utilise milk from the nomadic Fulani herds in Northern Nigeria for the increased production of ghee has recently been initiated, and it is hoped that this will in due time result not only in increased supplies for the Nigerian population, but also in a surplus for export.

In Jamaica a milk condensary has been successfully operated since 1939. Before the war Jamaica imported annually some 130,000 cases of condensed milk. The condensary now produces some 277,000 cases per annum and after meeting all local requirements is able to export small quantities to other West Indian territories.

In Fiji considerable quantities of ghee are produced by peasant farmers for domestic consumption. There are also two dairy factories in Fiji which produce the greater part of the Colony's requirements of butter and fats.

POULTRY AND EGGS

Although poultry is kept in nearly all the Colonial territories most of it is of poor quality and the eggs produced are small. Veterinary Departments and Departments of Agriculture are endeavouring to improve indigenous stocks by the distribution of eggs and cockerels of improved breeds, and thus increase the contribution of poultry to the diet of the local inhabitants.

In Africa in particular, much headway has been made in the improvement of indigenous stocks. Beginning in the larger towns where the demand for good quality cooking fowls and eggs has shown that the keeping of improved breeds of poultry is highly profitable, a steady improvement has occurred which has spread gradually to the more outlying areas. To-day in many territories cross-bred and pure-bred flocks are common in all but the very remote areas ; and in Kenya for example large flocks of pure-bred poultry are kept.

There is at present very little export trade in either poultry or eggs. A commercial concern in Nigeria started to export guinea-fowl shortly before the war, but this trade has not yet been resumed. There is a thriving internal trade in hens' and guinea-fowl eggs from Northern to Southern Nigeria. A Colonial Development Corporation scheme for the large-scale production of eggs and table poultry in the Gambia has proved unsuccessful, owing largely to the unsuitability of the soil for the production of the necessary feeding stuffs.

IVORY, RHINOCEROS HORN AND HIPPOPOTAMUS TEETH

The elephant is carefully preserved in the East, Central and West African territories. Hunting is allowed only under licence, and every effort is made to prevent poaching and the taking of immature ivory. There is a small but steady export trade in ivory, more particularly from the East and Central African territories ; details of the exports are to be found under the individual territorial memoranda. Rhinoceros horn and Hippopotamus teeth are exported on a very small scale from the East and Central African territories. The former has a high value due to the fact that in China, to which almost all the exports have found their way, the horn has a high reputation as an aphrodisiac.

CEREALS

RICE

Varieties, Methods of Cultivation, etc.

The rice plant (Oryza sativa) is an annual grass bearing panicles of grain, each grain being enclosed in a separate husk. The original wild plant is supposed to be a native of the warmer parts of Asia, and from it has been derived a large number of cultivated varieties, the majority adapted for lowland and marshy lands, and others, known as upland or hill rice, for growth on dry land. Some varieties are equally suitable for wet or dry land cultivation. Hill rice is generally grown under shifting (*chena* or *taungya*) cultivation which can be practised without harm only where land is in ample supply.

Of all the grain crops rice, being the staple food of the most densely populated parts of Asia, supplies food for the greatest number of human beings. By far the greater part of the crop is obtained from wet-land rice grown in level bunded fields which are submerged in water by rainfall or by means of irrigation. Such crops may be broadcast or drilled or raised from seedlings grown in nurseries and transplanted subsequently into the fields, the latter method being much the most common. Upland or hill rice, however, is sown broadcast on ordinary arable land and depends on rainfall for its growth.

The rice in the husk (paddy, padi or rough rice) is threshed when ripe, and before consumption must be hulled, so that the husk may be removed. This process may be performed on a small scale by pounding with a pestle and mortar, but is now more generally done by machinery in a mill. The grain itself, after the husk has been removed, consists of three parts, the small germ or embryo, the outer layers of the grain which include the "pericarp" or seedcoat with the underlying aleurone layer, and the starchy "endosperm." The germ, the pericarp and the aleurone layer are richer in certain nutrients than the endosperm. The husked grain is subjected to further milling processes which remove all or most of the seed-coat together with the embryo and produce the white, clean or milled rice of commerce with rice bran as a by-product. Clean rice possesses better keeping qualities than rice that has merely had the husk removed. Rice for European and some other markets is subjected to a further polishing and glazing process which removes only a negligible amount of "polishings," but which results in a rice of more pleasing appearance.

A rice-mill produces besides the finished whole rice a quantity of "broken rice" which is used chiefly for brewing, distilling, and the manufacture of starch, while the "rice bran" is used for cattle food.

In certain areas, for instance in British Guiana, Ceylon and Nigeria, the paddy is parboiled and then dried in the sun before the husk is removed. Parboiling has two big advantages. It enables rice to be milled with a lower percentage of broken grains and, more important, it produces a rice containing a higher content of the water-soluble nutritional factors, particularly those of the B group of vitamins. The process of parboiling leads to a redistribution of Vitamin B in the grain with the result that the endosperm is considerably enriched and consequently any accidental removal of the aleurone layer through over-milling in the necessary process of removing the pericarp is much less harmful. Improvement in processing by the installation of modern rice-milling machinery is of great importance in this connection.

World Production and Consumption

In considering figures of rice production it is important to distinguish between paddy and clean rice. A ton of paddy produces about two-thirds of a ton of clean rice. In this section, figures of colonial production and trade are in terms of clean rice.

The world acreage under rice was estimated at somewhat over 200 million acres in the years before the war. The largest areas were in India (53·5 million acres) China Indo-China, Burma, Java, Japan and Siam. World production was estimated at some 90 to 100 million tons of clean rice annually, almost all grown and consumed (about 94 per cent) in South-East Asia. Only a small proportion of world production entered world trade, and the principal suppliers were Burma, Siam and Indo-China. Burma alone was responsible for about one-third of world exports. There were a few minor exporters outside Asia, notably Egypt, U.S.A. and Brazil, but they contributed only between 3 and 4 per cent (average 1934 to 1938) of world exports. Japan, India, Malaya, Ceylon and China were the largest importers.

The devastation and disruption which South-East Asia suffered during the Japanese War and civil strife in recent years led to a sharp drop in rice production in that area and in exports from the territories which used to supply the bulk of requirements which could not be met by domestic production. In 1949-50 world production of rice had almost got back to the pre-war average, but world exports were less than half their pre-war average. Exports from Burma in particular did not reach more than two-fifths of their pre-war volume. As a consequence of the severe recession in rice exports from Asia, producing countries outside that Continent have become of greater importance for world supply. Thus the United States and Egypt were responsible for nearly one-quarter of world exports in 1949. Moreover an even larger proportion of world rice output than before the war was sent to the main Asiatic consuming areas under the direction, first, of the Combined Food Board and, later, of a special Rice Committee set up by the International Emergency Food Council. Europe's share of world rice imports, which before the war amounted to 15 per cent, was only 8·6 per cent in 1949 or one-quarter of the 1934-38 average.

Colonial Production

The main Colonial areas of production are Malaya, British Guiana and West Africa. Rice is also produced in Borneo, East Africa, Hong Kong, Fiji and certain Caribbean territories. The British Colonial territories of South-East Asia, as also India and Ceylon, were before the war, and are still to-day, deficit areas, but in all of these territories efforts are being made, and further measures considered, to increase production of this staple foodstuff. Further expansion of rice cultivation is being encouraged in territories where conditions are suitable; large-scale developments are dependent upon a number of factors including water control, the provision of irrigation facilities and the introduction of mechanisation. The Federation of Malaya, by an extension of the acreage under rice, has been able in recent years to raise its output to 436,000 tons in 1950, compared with about 320,000 tons before the war, and a further increase is expected. Further expansion is dependent on large-scale irrigation works and, possibly, the introduction of mechanical methods of cultivation. Singapore and the Federation remain, however, essentially deficit areas. They imported upwards of 550,000 tons annually before the war. Net imports during 1950 were about 420,000 tons.

Conditions for expansion are similar in Sarawak and North Borneo, where it is hoped to increase rice production considerably over the present output of about 70,000 and 40,000 tons a year respectively, but an additional pre-requisite in the latter territory is large-scale immigration, to secure the necessary labour force which is not available locally.

Rice is grown in both West Africa and East Africa, but the whole output is consumed locally, and there is still a large unsatisfied demand in most territories.

Sierra Leone has the largest production (180,000 tons), and it is hoped to expand cultivation by the reclamation of swamps and the planting of pure line paddies which are suitable for the saline conditions in the deltaic areas. Research to this end is being undertaken.

There are possibilities of increased rice production elsewhere in West Africa, but considerable sums of money would have to be found for irrigation works in Nigeria and the Gold Coast. It is, however, hoped to increase the production of rice in Nigeria by about 10,000 tons (present production : 40,000 tons). In the Gambia there are prospects of mechanised production. A larger output by indigenous methods can be expected only if more men take to growing rice. At present it is a woman's crop.

In East Africa, too, production could be expanded greatly, but this would depend on heavy capital expenditure for drainage and irrigation, and on overcoming the present shortage of skilled labour. In Tanganyika, the main producer in the region, the land under rice has actually been reduced compared with before the war, because of shortage of labour, and exports, which before the war averaged 8,000 tons per annum and rose in some war years to 18,000 tons, were almost negligible in 1950. There are fairly good prospects of obtaining a higher output to meet growing local requirements in Kenya, Northern Rhodesia and Nyasaland.

In the West Indies rice is grown in several territories, but British Guiana is the only territory in the region where production has greatly increased in the last 25 years (1921-25 average was 25,000 tons, 1945-49, 62,000 tons) and which also has a surplus for export (26,000 in 1949), all exports at present going to other West Indian territories. It is hoped to increase production still further by drainage and irrigation of the coast lands and in certain areas by mechanisation. With the assistance of a Colonial Development and Welfare grant, work has now started on four or five large-scale schemes aimed at an eventual extension of lands under rice by about 70,000 acres. In Trinidad, where conditions are well suited for rice, the area under crop has shown a rapid increase in recent years and the industry now supplies about a half of the colony's requirements. In pre-war years the area under rice was estimated to be about 10,000 acres. A recent survey now places the area at 20,000 acres. Rice production in 1938 was approximately 6,000 tons and since the war, 12,000 tons.

Yields vary widely from one territory to another. In the Federation of Malaya, yields were between 900 and 1,100 lb. of rice per acre before the war, but fell to between 600 and 800 lb. after the war, partly because marginal lands were being brought into production. In 1949-50, however, yields had risen to 1,070 lb. per acre. In Borneo, yields are far lower, at 300-400 lb. per acre. In British Guiana, rice yields vary between 1,300 and 1,800 lb. per acre, and in Trinidad are about 1,300 lb. per acre. Investigations by the East African Rice Mission suggested an average yield of about 600-700 lb., in Nyasaland, and 500-600 lb. in Uganda. Yields in Tanganyika are said to vary between 400 lb. per acre on marginal rice lands to over 2,000 lb. on good rice land, with an average of about 600 lb. In Sierra Leone yields are reported to vary between 400-900 lb. per acre in the case of upland rice, and 700-1,300 lb. per acre in the coastal and inland swamp areas.

Rice is a staple food and is grown for local consumption (18,000 tons in 1949) in Fiji, and in Hong Kong (about 20,000 tons). The latter colony, however, is a major deficit area, importing about 175,000 tons annually before the war, 113,000 tons in 1948 and 72,000 tons in 1949.

OTHER CEREALS

Large areas are under cereal crops in the Colonial Territories, and the aggregate annual production is substantial. Except for rice, which has been dealt with above, almost the whole of the production of cereals is locally consumed, and only small quantities, consisting almost entirely of maize, enter the world market. It is impossible to estimate even approximately the acreage of production since no statistics exist for acreages under dry grain crops in the majority of the territories, but it is certain that in the British African Colonial territories millions of acres are under maize, millets and sorghum, which are much the most important colonial grain crops. Annual production of these crops in Nigeria, for instance, is estimated at 2,750,000 tons and in Kenya at 450,000 tons. Maize, millets and sorghum are not of major importance in any non-African British Colonial territory. In the Caribbean area, for instance, there are about 15,000 acres under maize in both Jamaica and British Honduras, and elsewhere acreages are even smaller.

There is an important difference in the use made of these crops in the Western world on the one hand and in Colonial territories on the other. Whereas in Western Europe and in North America maize and millets are primarily grown as animal feeding stuffs, in the Colonial territories they are used almost entirely for human consumption, and the first and essential task here is to satisfy the demands of the local populations. Certain types of maize have special uses : thus flat white " dent " maize is the raw material for cornflour; other products manufactured from maize are starch and glucose.

Generally maize is grown in areas with well distributed annual rainfall, millets and sorghum in areas with lower annual rainfalls, e.g., maize is a suitable crop in the Middle Belt area of Nigeria and in most parts of Kenya, Northern Rhodesia and Nyasaland, whereas millets and sorghums are more commonly grown in the North of Nigeria, Tanganyika and parts of Uganda. The growers are essentially peasant cultivators, and in many cases the crops are almost entirely for their own consumption. There is, however, a considerable local trade going on in most territories, often in the form of barter. Local Governments have taken certain measures to ensure supplies of this staple food for non-producers. The Northern Rhodesian Government, for instance, has established a Maize Control Board which purchases grain from European farmers and from the native markets for sale in the towns and to mining labour. The East Africa High Commission also operates a cereals pool which buys Kenya and Uganda surpluses of grain, chiefly maize, much of which is sold to Tanganyika which tends to be a deficiency territory.

Under the pressure of war-time needs and post-war shortages, considerable efforts were made to increase maize production in the three East African territories so as to make the region self-sufficient. But this was achieved at the expense of soil fertility, since maize tends to be a soil impoverishing crop. It is therefore recognised that increased production of maize and other coarse grains, which is almost certainly necessary to feed increasing populations in Africa and to support expanding livestock industries, must be sought usually by raising yields per acre rather than by extending acreages.

In Kenya maize is grown both in the native reserves and on European estates. The largest increase in maize production in East Africa occurred in Uganda, where output rose from 49,000 tons in 1938 to 142,000 tons in 1949. This increased production of maize is the outcome of a deliberate policy started during the war and aimed at producing an export surplus for neighbouring territories. Kenya exported in 1950 76,730 tons of maize and 8,289 tons of meal, mainly to Tanganyika and Germany.

As far as can be ascertained, world production of maize has averaged 115 million tons in recent years, and to this the United States of America contributes 77 per cent, as against 60 per cent before the war. The Argentine dominates the world market and, as in pre-war years, supplies some 80 per cent of the total volume entering into international trade.

Millets and sorghums are grown solely for local consumption. The latter is known as " guinea corn " in West Africa, " kaffir corn " in Basutoland, Northern Rhodesia and South Africa, and " durra " in Egypt and the Sudan. In Nigeria and Kenya millets and sorghums are widely grown. In Uganda, millets, and especially finger millet, are the staple cereal foodstuffs in the drier parts of the Protectorate. In Tanganyika, millets constitute the most important native foodstuff and it is estimated that three million acres were planted with either millets or maize in 1950, millets occupying by far the larger area. Bulrush millet is the variety grown most.

Some of the cereals commonly grown in countries of the temperate zone, such as wheat and barley, are produced in certain Colonies.

Wheat is the most important member of the group. It constitutes the main cereal crop of Cyprus and Malta ; in both islands the whole crop is consumed locally and has to be supplemented by import. Wheat of excellent quality is grown in Basutoland, the area, which in 1934-38 averaged 75,000 acres, being 145,000 acres in recent years. The territory in most years has a surplus of wheat and wheat flour which is exported to the Union of South Africa.

Kenya is the most important wheat-growing country in the Colonial territories. The crop is mainly grown by Europeans and was in 1949 107,841 tons, as against only 21,000 tons in 1938. The country, which prior to the last war was a net importer of wheat (though even then exporting some wheat flour), has in recent years built up an export trade (6,730 tons of wheat and 21,476 tons of wheat flour in 1950, most of it going to neighbouring territories).

Tanganyika had in 1950 38,800 acres under wheat, that is to say, more than three times as much as before the war, and produced over 9,000 tons. In Northern Rhodesia wheat has become of less importance in recent years, only some 800 tons being produced in 1948 and 500 tons in 1949 as against an average of some 2,000 tons in the preceding four years.

Barley is produced in small quantities in a few Colonies. It is of some importance in Cyprus where production averaged 62,000 tons in 1948-50, rather more than pre-war. Some barley is also grown in Kenya, Basutoland, Somaliland and Malta.

Oats is an unimportant European crop in Kenya ; it is also produced in small quantities in Cyprus.

COCOA

METHODS OF PRODUCTION

Cocoa is produced from the seed of *Theobroma cacao*, a small spreading tree which does not usually exceed 20 ft. in height. It is a native of tropical South America and has been introduced from there into a great many tropical countries. Cocoa is an exacting crop and its requirements must be met within relatively narrow limits if it is to do well; it thrives best on moderately heavy, deep, alluvial soils, well watered and well drained, and requires fairly abundant and well-distributed rainfall with high atmospheric humidity and uniformly high temperatures. The crop is particularly susceptible to damage from high winds.

Cocoa plants are generally raised from seed, but with the selection of high yielding strains of clonal cocoa, particularly at the Imperial College of Tropical Agriculture, vegetative propagation is becoming more important. In propagation from seed, the seeds may either be planted in a nursery and the plants subsequently planted out, or sown at stake in the field. The trees come into bearing from four to five years after planting out. During the early stages of growth the plants require to be sheltered from the direct rays of the sun and throughout its life the tree requires protection and shelter from drying winds. Neglect of this precaution may have disastrous results.

The crop is borne in pods attached to the stem or branches of the tree by short stalks; the shape, appearance, size and colour of the pods vary according to the variety. They are green when immature and turn reddish-brown or yellow as they ripen. Each pod contains some 30 to 60 seeds arranged in five or eight rows (mostly five); the seeds are white when fresh, but brown, covered with a fragile skin or shell, when dried.

After extraction from the pod, curing and drying, the seeds enter world trade as cocoa beans. Curing consists essentially of a process of fermentation in which the wet cocoa beans are piled in heaps or filled into boxes and allowed to ferment for several days, at the end of which time the beans may or may not be washed. They are then dried either in the sun or in some form of artificial drier. Fermentation has the effect of removing the mucilaginous covering of the beans; it also induces certain chemical changes in the beans on which depends the development of the chocolate flavour during roasting. These changes are produced more rapidly in Criollo beans than in Forastero (see below). Chocolate made from under-fermented beans has an unpleasant astringency. Fermentation therefore requires to be conducted with considerable care in order to obtain the properly fermented product desired by manufacturers.

There are usually two crops a year; north of the Equator the main crop season is from September or October to January or February, while the small or "mid" crop comes in about four or five months later. The time of harvesting and sale of the crop varies to some extent in different countries, but for statistical purposes the crop year is usually taken as from 1st October to 30th September. The yields vary considerably according to soils, climate and variety. In the Gold Coast the estimated average is about 560 lb. of dry beans per acre, whereas in Trinidad it is between 200 and 250 lb.

The main products made of cocoa are cocoa powder and eating chocolate. While, to obtain cocoa powder, part of the fat, called cocoa butter, has to be removed from the cocoa cake, in manufacturing chocolate additional cocoa butter is mixed with the cocoa mass. Another product which is sometimes extracted from the cocoa cake is theobromine which is used as a stimulant and for medicinal purposes.

As stated earlier, cocoa is usually exported from the producing countries in the form of beans. A processing industry manufacturing cocoa butter and theobromine has, however, been established in Brazil; cocoa butter is also manufactured in the Dominican Republic and, on a limited scale, in a plant recently set up in the Gold Coast.

VARIETIES

Many varieties of cocoa are known and distinguished by local names in various parts of the world, but three main groups are recognised—"ordinary" coming from trees classified botanically as Amazonian Forasteros; "fine" coming from trees classified botanically as Trinitarios; and Criollo, often included with the group just mentioned among the fine cocoas, but strictly a separate class. Of a total world production approaching 700,000 tons it is estimated that less than 1,000 tons are pure Criollo. There are thus three broad divisions recognised by the markets, first, the Criollo and "near Criollo" cocoas such as are produced in Ecuador, Venezuela, Java, Samoa, and Ceylon; secondly, the higher Forastero cocoas such as are produced in Trinidad and, to a lesser extent, in Grenada; and, lastly, the "common" or bulk cocoas of Forestero strain produced in West Africa and Brazil.

There has been a tendency since before the war for the prices of fine and common cocoa to approach closer to one another. This is due partly to an improvement in the quality of common West African cocoa and partly to improvements in the process of manufacture which have made it possible to reduce the proportion of fine cocoa in the finished product.

WORLD PRODUCTION AND CONSUMPTION

Although cocoa has been known in Europe since the Spaniards brought it from South America in the 16th century, an important international trade in this commodity did not develop before the second half of the 19th century. The largest increase both in the production and consumption of cocoa occurred only in this century and particularly in the inter-war period.

In 1906 world production of cocoa beans was estimated at 148,000 tons; after the 1914-18 war it averaged for some years 290,000 tons, but rose to 600,000 tons in the mid-twenties and to 720,000 tons in 1939.

Not only has there been in the last four or five decades a remarkable development in cocoa production, but there has also been a great change in the principal sources of supply. The following table shows average world exports of cocoa beans per annum and the shares of the principal producing countries before and since the last war:

COCOA: EXPORTS FROM MAIN PRODUCING COUNTRIES
(thousand long tons)

Country	1935-38 *Average*	1950-51
Gold Coast	270	262
Nigeria	92	110
French W. Africa, including French Cameroons . .	74	113
Brazil	115	131
Dominican Republic . .	23	27
Ecuador	20	23
Venezuela	17	17
Trinidad	16	8
Grenada	4	3
Others	56	74
Total	687	768

The emergence of West Africa as the main cocoa-producing area coincided with the almost complete substitution of Forastero for Criollo or near-Criollo. The drop in the South and Central American contribution compared with the beginning of the century was mainly a reflection of a sharp decline of production in Ecuador and to a lesser reduction in Trinidad.

In 1948-49, when there was a heavy crop in the Gold Coast, that territory accounted for 37 per cent of world cocoa output, and Nigeria for a further 14·5 per cent. In 1950-51, the proportions were 34·1 per cent and 14·2 per cent respectively, as compared with 37·9 per cent and 14·7 per cent in 1938-39.

Another significant feature of the international trade in cocoa before the war was the small number of countries which could be deemed large manufacturers and consumers of cocoa products, namely, the United States, the United Kingdom, Germany, the Netherlands and France. These five countries were responsible for about four-fifths of all cocoa imports. Up to the first world war over 70 per cent of world imports went to Europe. In the inter-war period cocoa consumption was greatly developed in the United States, the largest single consumer of cocoa even before 1914. Since the last war, the United States has become an even more important consumer of cocoa, taking as much as 45·5 per cent of all cocoa imports in 1947, but the proportion had fallen to 38·6 per cent by 1950. Europe's consumption of cocoa has been kept down by rationing and shortage of purchasing power in recent years—one important pre-war customer, Germany, taking hardly any cocoa in the immediate post-war years. The present distribution of cocoa imports must, however, be regarded as transient.

In the war and post-war years, when chocolate was widely used both as pocket rations for the armed forces and as a convenient form of administering relief to civilians, cocoa has come to be regarded as a food to a much larger extent than it was before the war, and it may be assumed that these new consumption habits will persist in those countries where they have been firmly established. There are, moreover, many countries even in the temperate zone (where the bulk of all cocoa is consumed) with a very low consumption per head—Russia and the whole of Asia in particular—and where there is thus ample scope for an increase in consumption. All these facts go a long way to justify the belief that the rising trend of consumption which was evident between the wars, will continue, provided supplies are available. It is, therefore, a matter of great importance whether cocoa production can be kept up to a level to meet increasing demand. As will be shown presently, the British Colonial territories, at present responsible for approximately 50 per cent of world cocoa production, can play a large part in the solution of this problem.

Although the trend of world cocoa prices has been downwards from the beginning of the century to 1939, these prices have greatly fluctuated within the period and again since 1946, when the price ceiling was taken off in the United States. Because of the prominent position of the United States as a consumer of cocoa, the prices quoted each day on the New York Terminal Market are of world-wide significance. The world price of cocoa fluctuates considerably both from day to day and from season to season. For instance, the average f.o.b. price of cocoa per ton in West Africa in 1934 was £18 10s., and in 1939 £18, whereas in the boom year of 1937 it was £40. Between September, 1946, and October, 1947, it rose from £40 11s. to £245, to sink again after some ups and downs to £180 at the end of 1949. After declining to about £160 per ton in March, 1950, the price increased steadily except for a slight set-back in June to over £320 per ton in September after which a decline set in. The price ruling at the end of 1950 was about £255 per ton.

Seasonal fluctuations in the price of cocoa have their root in special features of both cocoa production and cocoa consumption. Cocoa is an annual crop and the volume of cocoa shipments from the principal producing areas may vary considerably from year to year. On the other hand, the demand for cocoa is elastic in so far as chocolate is more likely to be dispensed with in times of falling incomes than staple foodstuffs. A recession in purchasing power in the principal consuming countries is, therefore, bound to react on demand which in the past has been kept up in such periods only by an appreciable lowering of prices. Moreover, cocoa trees take five to seven years to come into bearing, and supplies from newly planted trees may enter the market at times of rising as well as of falling demand and thus either mitigate or aggravate cyclical price movements.

COLONIAL PRODUCTION

A considerable proportion of world production of cocoa originates in the Colonial territories. Before the war it was responsible for about 60 per cent of world supplies, and produces at present about 50 per cent. This relative decline is due to reduced crops in the Gold Coast and Trinidad, to Ceylon ceasing to be a Colony, and to increases in the production of a few non-British countries, notably the Dominican Republic and the French Cameroons.

In spite of a small decrease in its proportional contribution to world exports, the Gold Coast is still by far the most important single producer of cocoa, while Nigeria occupies third place after Brazil. There are smaller cocoa-producing areas in British West Africa in Sierra Leone and the Cameroons. The variety of cocoa grown there is the same as that produced in the Gold Coast and Nigeria, namely common "Forastero."

Throughout the cocoa-producing areas of the Gold Coast and Nigeria cocoa is a peasant crop. It is grown on a large number of African farms—in the Gold Coast the number was estimated at about 300,000 in 1948—varying in size from a fraction of an acre to 30 acres. For many years the industry was conducted as an accessory to subsistence agriculture and little heed was paid by the farmers to production costs. However, with the increasing demand for imported food and manufactured articles, the employment of hired labour, and the growing tendency to acquire farms by purchase, costs have come to play a part in the farmers' calculations, particularly in the Gold Coast.

Marketing conditions before the war had an adverse influence on production. The violent fluctuations in the world price meant great instability in the cocoa farmer's income, and the economic and social effect of such instability was particularly great in a territory like the Gold Coast, where cocoa accounted for over 56 per cent of total exports (average 1935-38), and where nearly one-half of the population was dependent on the cocoa industry for its livelihood. The situation came to a head when, in 1937, the European cocoa-buying firms entered into an agreement, the object of which was to control competition between buyers to prevent the payment to the producers of prices unrelated to the world price. In the farmers' eyes the agreement involved the setting up of a monopoly aimed at forcing down prices. They reacted by a hold-up of cocoa sales which, under the guidance of the chiefs, was maintained for a whole season. Moreover, in Ashanti, the youngest cocoa area in the Gold Coast, new planting was forbidden by the Ashantehene, a prohibition which was only withdrawn after the war. These events led to the sending out of a Commission on the Marketing of West African Cocoa in 1938. In their report* the Commission drew attention to the unsettling effect of fluctuating prices and to the social and economic evil of farmers' indebtedness.

The proposals of the Commission were still under consideration when the war broke out. In 1939 it became apparent that the merchants, owing to the conditions created by the war, could no longer finance the crop. A special organisation, operating first under the aegis of the Ministry of Food and later under the Colonial Office, was therefore formed to finance from United Kingdom funds the purchase and shipment of successive crops, it being understood that any profits made would eventually be returned to the West African territories. The West African Produce Control Board, as this organisation came to be called, thus became the sole purchaser and exporter of West African cocoa, and the merchants occupied the position of agents. Producer prices were fixed season by season in advance and agents' commissions were regulated by schedule. In the earlier years of the war a good deal of cocoa had to be burnt, since the Board could not dispose of its purchases. Later in the war, largely as a result of falling crops and improved shipping facilities, the Board was able to dispose of the whole crop at the war-time American ceiling price.

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* Cmd. 5845 (1938).

In 1947 the Board handed over its functions to local marketing boards set up by statute in the Gold Coast and Nigeria. A total amount of £25,000,000 accumulated by it from proceeds of sales of cocoa during its period of operation was voted by Parliament for the new Boards. Both of these Boards have substantial African representation—of the twelve members of the Gold Coast Board, six are Africans—and are to a very high degree autonomous. They are responsible for the purchase, shipping, and selling of the cocoa crops of the two territories. They sell the cocoa through two subsidiary companies in London, the Gold Coast Cocoa Marketing Company Limited and the Nigerian Produce Marketing Company Limited.

The main objective of the Marketing Boards is to stabilise the price which the producer receives over a whole buying season and to protect him as far as they can from violent fluctuations in world prices over a period of years. To this end, the Marketing Boards intervene between the Gold Coast and Nigerian cocoa producers and the world market, thus insulating them from the direct impact of world price fluctuations. Owing to the high prices which have prevailed in recent years, the Boards have built up very substantial reserves. The Boards also fulfil an important function in providing funds for research into the cocoa industry's problems, for combating diseases which are weakening the industry, and generally for the development of the industry or of cocoa-growing areas.

By far the gravest menace overhanging the future of the West African cocoa industry is the Swollen Shoot disease. It was first noticed in the Eastern Province of the Gold Coast in 1936, but it probably started in 1932-33. It causes the branches to wither away from the tips and eventually kills the whole tree. Its name derives from the fact that swellings in the young shoots are frequently one of its symptoms. The disease, which is a virus disease carried by mealy-bugs. has proved highly infectious and has spread much more rapidly than was expected when it was first noticed. It took some years to diagnose it and for those concerned to become fully aware of its dangers. However, in 1939 a Cocoa Research Station was opened at Tafo in the Gold Coast. The work of this Station led to the recognition of Swollen Shoot as a virus disease. Out of the Research Station grew, in 1943, the West African Cocoa Research Institute (W.A.C.R.I.). It continued on a larger scale the work initiated at the Research Station, paying from the start particular attention to safeguarding the cocoa areas of Nigeria, where at that time Swollen Shoot had not been found.

There is at present no certain cure for Swollen Shoot and a rigorous cutting out of infected trees has proved the only effective means of halting the spread of the disease. In the Gold Coast cutting out was made compulsory in 1947, and the campaign was pursued vigorously although hampered by shortage of staff. But the measure met with increasing hostility from farmers and in April, 1948, it had to be suspended in favour of voluntary operations. The whole position was re-examined in 1948 by a Commission of three scientists of international repute. Their report confirmed the diagnosis of Swollen Shoot as a virus disease and emphasised afresh the vital necessity of cutting out diseased trees ; but it concluded that even this measure would succeed in rescuing the cocoa industry from eventual extinction only if it were done " accurately, thoroughly, and continuously and without delay."*

By this time the disease was rampant in the Eastern Province of the Colony, it was well established in Ashanti and scattered outbreaks had occurred in the Western Province. Recruitment of disease control staff was therefore increased, a special Cocoa Rehabilitation Department was set up to conduct the cutting out campaign in the area of mass infection in the Eastern Province and, in December, 1949, it became possible to resume compulsory cutting out. During 1950 the cutting out campaign made considerable headway, a detailed survey of all infected areas was put in hand, and progress was made in the establishment of a disease free belt between the specially infected area and the rest of the territory. Research on other means of disease control has continued and Messrs. Pest Control Limited have evolved a systemic insecticide which is claimed to be toxic to the mealy-bug but harmless to the cocoa flower pollinators and the crop itself.

In March, 1951, compulsory cutting out was suspended, but the Government planned, with popular support and through extended research, to intensify the campaign against the disease.

A survey of Nigerian cocoa farms was started in 1944, and within six months of its commencement Swollen Shoot disease was discovered in Oyo Province, the principal cocoa growing area of the territory. Active steps were taken to implement control measures. In 1945 the Ibadan Native Administration passed regulations for the control of the disease by cutting out and treatment commenced in 1946. The cutting out campaign was opposed from the outset and two major stoppages occurred in 1946 and 1948-49. When the final assessment was made on completion of the survey in 1949, the position was found to be more serious than had at first been expected, and it was established that the disease had reached epidemic proportions over a large area of the Ibadan Division.

A Cocoa Department was established within the Department of Agriculture in 1949. Additional staff were recruited. Intensive surveys of the diseased areas have now been completed and the limits of the area of mass infection well defined. Present policy aims to seal off the area of high infection and protect the adjacent healthy cocoa areas by the creation of a protective belt. Compulsory cutting out was introduced by the Government in 1950, and although opposition is still encountered, it has been reduced to almost negligible proportions and the work is now able to proceed in a systematic manner with comparatively little interruption.

In both territories rehabilitation grants are paid from funds provided by the Marketing Boards, to ensure the replanting of the land. As part of the campaign, the cocoa areas in both territories are being intensively surveyed and an inspection service has been established. Propaganda by means of films, demonstrations and lectures is being conducted to impress upon African farmers the need to co-operate in efforts being made to control Swollen Shoot.

These are the measures being taken to deal with the menace of Swollen Shoot. Apart from them, the main effort in West Africa must be directed towards increased research into disease and cocoa agronomy, the introduction of high-bearing, disease-resistant strains, soil surveys and improved agricultural practice, including a reduction of farmers' indebtedness.

In the West Indies, the second of the more important cocoa-producing areas in the Colonial Empire, cocoa, largely of the Trinitarios type, is grown as an estate crop in Trinidad, Jamaica and the Windward Islands. The total annual production is approximately 5,000, 2,500 and 3,000 tons respectively. Unfortunately, the West Indian cocoa industry went through successive periods of depression during the inter-war and war years, particularly in Trinidad, where production dropped from 11,700 tons in 1937 to 5,000 tons in 1948, but rose slightly thereafter.

The West Indian Cocoa industry also suffers severely from diseases. The worst ravages in this area are being caused by witches' broom, a fungus which first attacks the twigs and produces a broom-like effect on the ends of the branches. The disease also attacks the cushions and pods and its most damaging feature is a pod rot. Control of the disease is achieved principally by cutting down and burning the affected trees. The most effective long-term protection would be secured by the use of disease-resistant strains, and research to this end and to find high yielding strains is being carried out at the Imperial College of Tropical Agriculture.

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* Colonial No. 236, p. 9.

Serious consideration has been given in recent years to the opening up of new cocoa-producing areas, especially in South-East Asia. Cocoa cultivation in Malaya before the war was confined to less than five acres planted for observation purposes at Agricultural stations, plus 200–300 trees planted by smallholders in various parts of the peninsula. An investigation after the war[*] indicated that Malaya, and to a lesser extent North Borneo, offered promising conditions for the extended cultivation of cocoa ; but further research on climate, soil, and suitable methods and seeds is required before planting on a large scale will become practicable. Meanwhile experimental areas at agricultural stations and on estates have been increased to some 400 acres, while approximately 4,500 acres of land is at present under application by two commercial firms for large-scale planting. A quarantine nursery is being established near Singapore and seeds obtained from West Africa are being grown in isolation and under supervision for distribution in Malaya and the Borneo territories.

British Honduras is another potential area where cocoa might be produced. A Criollo species is said to occur in the forests there in the wild state and before the 1914–18 war some cocoa was grown on plantations. Some of these are still in existence, and the Commission which investigated the economic potentialities of the territory in 1948 found the soil and climatic conditions suitable for the establishment of a cocoa industry on a larger scale, provided that the necessary labour could be obtained by immigration.[†]

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[*] Col. No. 230.

[†] Cmd. 7533.

COCOA: PRODUCTION IN MAJOR PRODUCING COUNTRIES

(Thousand tons)

	1938	1939	1946	1947	1948	1949	1950
Gold Coast[1]	232	298	209	192	208	278	248
Nigeria	99	116	94	111	75	109	99[1]
Trinidad	19	7	3	4	8	6	7[2]
Grenada	3	4	3	2	3	3	3
Brazil	140	133	120	117	95	127	169
French West Africa	52	54	36	28	34	48	60
French Cameroons[2]	31	27	33	33	47	46	44
Dominican Republic	28	30	26	32	30	23	33
Ecuador	17	13	14	17	17	18	21
Venezuela	20	15	15	17	23	19	14
Total World Production ..	717	787	618	668	615	751	764

The figures relate to the year shown or to the season ending in that year.

[1] Seasonal purchases for export.

[2] Exports.

(Source : The Commonwealth Economic Committee's report on Plantation Crops (1950), for figures relating to 1938-1949. Commodity Report on Cocoa issued by the United Nations Food and Agriculture Organisation, and other sources for 1950 figures.)

COFFEE

The coffee tree is a tropical, fruit-bearing tree, and the coffee bean is the prepared seed of the fruit or berry. The fruits or berries, consisting of the beans surrounded by the pulp, are sometimes known as " cherries." Each fruit normally contains two beans, but when only one bean develops it is known as a " peaberry."

VARIETIES

The most important species of the coffee tree is *Arabica*. Other less important species include *Robusta, Liberica, Stenophylla* and *Excelsa*. *Arabica* probably came originally from the mountains of Abyssinia, *Robusta* from the Congo, and *Liberica* from West Africa. *Stenophylla* is the highland coffee of Sierra Leone.

Arabica, which thrives best at elevations of over 3,000 feet above sea level, provides by far the finest quality coffee and makes up the bulk of world production, but it is the most delicate plant and requires certain types of soil and careful cultivation if it is to succeed. It normally yields in the third year, and under favourable conditions may produce good crops in the fifth year. Like all fruit trees, coffee is liable to very wide fluctuations in yield from one season to another. A yield of 5 to 7 cwt. per acre is considered good, but over a series of years the average for well-matured plantations is less than this, though in exceptional seasons it may be considerably more.

Robusta and *Liberica* are grown at lower elevations; they are both hardier and, on the whole, give larger yields than *Arabica* (*Liberica* being the more prolific of the two), and they can be grown on soils on which *Arabica* does not thrive. *Robusta* is regarded as superior in quality to *Liberica*. *Robusta* reaches maturity in about the same time as *Arabica*, but *Liberica* takes longer to reach the fruiting stage. These species are grown for the most part in Africa, and to a lesser extent in the Far East.

METHODS OF PRODUCTION

The berries are picked when ripe. The choice of the right time for picking is most important, for if the berries are picked while they are still green the coffee will not have acquired the full flavour, but if the berry is over-ripe flavour will be lost. After picking the berries may be treated by the " wet " or the " dry " method. For treatment by the " wet " method, which is generally used in the preparation of Arabica berries and of plantation-produced Robusta, the berries are removed to a pulping machine which washes and removes the pulp from the berries; fermentation starts immediately the coffee has been pulped (the fermentation starting in the sugar coating of the coffee beans) and the beans are removed to fermentation boxes or tanks where they remain till the sugar coating leaves the parchment easily; they are then washed and dried—the latter process taking two to three weeks. These processes are all performed on or near the plantation as pulping should be carried out on the day of picking. The resultant produce is " parchment coffee." The " hulling " or " curing " to remove the parchment is then generally performed before shipping to overseas markets as this process is necessary before coffee can be graded. In the treatment of berries by the " dry " method, which is the method almost invariably used with peasant-produced Robusta coffee in Colonial territories, the berries are simply spread out to dry in the open, the dried berries being later passed through hullers which remove both the dried pulp and the parchment coverings in one process.

The colour of coffee beans after curing may differ considerably and they also vary in size. It is thus possible to differentiate commercial types by appearance. But in general it may be said that the greatest differences in the quality of the coffee bean are produced by altitude, and consequently by the species grown. The higher the altitude—up to the limit of cultivability—the milder the product, and it is customary to divide coffees into " mild " and " Brazils." It is fairly generally conceded that the finest coffees come from the highest elevations—3,000 feet to 6,000 feet. Further distinctions are made as to " hardness " or " softness," " washed " or " unwashed," " naturals."

The market grades of coffee are in most cases called by geographical designations followed by an indication of the quality and size. The resulting grades are :—

Grade A Grade B Grade C	Heavy solid beans according to size; A is the largest and C the smallest.
Grade PB	Peaberry; this is a fully formed and sound heavy bean from a berry which contains only one bean instead of the usual two.
Grade E	Elephant; this is a misformed bean having two parts closely fitted into each other which may separate on roasting.
Grade TT Grade T	Light beans called Triage. The TT is heavier than the T.
Grade HP	Defective beans which have been removed by handpicking.

WORLD PRODUCTION AND CONSUMPTION

Almost 90 per cent of the world supplies of coffee originate in either South or Central America. Brazil is the leading producer, having been responsible for 60 per cent of world production in 1934-38 and for almost 45 per cent in 1949 even though its acreage under coffee was considerably reduced during the war and has not again reached the pre-war limits. Other important producing countries in Latin-America are Colombia, El Salvador, Guatemala, Mexico and Venezuela.

Brazil's predominant position makes her policy in respect of coffee a major factor in the world market. In the 1930's, when a series of bumper crops left Brazil with large unsaleable surpluses, in order to prevent a slump in world prices she applied a policy of restriction, forbidding the planting of new trees, destroying large quantities of lower grade coffee, and taxing exports. But it soon became obvious that the policy of restricting supplies was not going to be followed by the other producing countries, some of which on the contrary expanded their output. Brazil therefore reversed her policy in 1937 and removed restrictions on export, but she maintained the policy of destroying coffee until 1944. During the war the United States became the sole important market for the Latin-American coffee-producing countries and in order to avoid ruinous competition in this market, the Inter-American Coffee Convention was signed in 1940 by the United States and the 14 coffee-producing countries of Latin-America. Under this Convention quotas were assigned to each of these countries for export to the United States.

Outside Latin-America production is of some importance in India, Indonesia, Angola, the Belgian Congo, British East Africa and Madagascar. British Colonies were before the war responsible for about 2 per cent of world production (average 1934-38) and produced 3·1 per cent of world output in 1948, and 2·4 per cent in 1949, most of the increase being in Uganda.

All the coffee grown in Central and South America, with the exception of Brazil, falls into the mild classification. As already stated, in general the " mild " coffees are regarded as superior in quality to "Brazils," but this is not a universally true differentiation, for much of the coffee produced in Brazil is of finer quality than some of those coffees which come from "mild" producing territories. For the most part coffees grown in Africa and Asia fall into the "mild" classification.

Although coffee consumption is widely spread, the United States occupies the foremost position as a consumer. Before the war, the United States consumed between 15,000,000 and 17,000,000 cwt. of raw coffee, or two-thirds of the world's coffee exports. This represented a consumption of 15 lb. per head of population. Since then consumption in the United States has further increased to 24,900,000 cwt. or over 19 lb. per head (1948). Apart from a small quantity from the Portuguese Colonies and the Belgian Congo, the United States obtains all its coffee from Brazil or the other Latin-American producing countries.

In Europe the following countries had the largest coffee imports before the war: France, Germany, Sweden, Belgium and the Netherlands. Compared with these countries, consumption in the United Kingdom was small, amounting to 458,000 cwt. or 0·7 lb. per head in 1938 as against, for instance, 3,667,000 cwt. or 9·8 lb. per head in France. To-day United Kingdom consumption is more than double what it was before the war. Colonial territories used to supply from one-third to one-half of United Kingdom imports in pre-war years, and of this two-thirds or more came from East Africa. A small proportion was supplied by India. The only important non-British source of coffee was Costa Rica. During the war consumption increased and non-British producers, particularly Brazil and the Belgian Congo, became important suppliers to the United Kingdom. Colonial coffees, however, continue to account for about half of the coffee imports of the United Kingdom.

During the war years coffee from the Eastern Hemisphere, principally from East Africa, was allocated in accordance with the decisions of the London Food Council. This arrangement came to an end in 1945 with the cessation of hostilities, and since 1946 East African coffee has been marketed through normal commercial channels. In 1947 the Ministry of Food entered into five-year contracts to purchase the greater part of the coffee crops of Tanganyika and Kenya together with some of the Uganda crop. The Ministry also made contracts for smaller quantities from Jamaica, Sierra Leone and the Gold Coast. Certain of the Ministry's contracts with the East African producers contained a clause prohibiting the Ministry from re-exporting its purchases. These contracts were for the period until 1952. After the contracts were negotiated, particularly in 1949, world coffee prices rose considerably. Early in 1950, therefore, a delegation representing East African producers visited the United Kingdom and negotiated a revision of the contracts by which the prices payable under the contracts for purchases from the 1949-50 crops were approximately doubled. Prices for the remaining two crops covered by the contracts were to be determined in relation to world prices between the new 1949-50 prices and new floor prices. The contracts with the other Colonial suppliers were subsequently revised on similar terms. The provision preventing re-export was deleted from those contracts in which it occurred, thus enabling the Ministry to re-sell its contractual purchases in hard-currency markets. That portion of the East African crop not covered by these contracts is sold by auction at Nairobi or Mombasa.

In recent years exportable coffee production has fallen behind world demand. In 1947-48 production was estimated at 30,123,000 cwt. against an estimated consumption of 32,417,000 cwt. More recently, however, world production has caught up with world consumption, and there may be a small surplus in 1951-52. Under the exceptional conditions prevailing to-day in regard to currencies, soft currency purchasers have paid prices for supplies from soft currency sources much above the prices ruling in the New York spot market. At the beginning of 1950 the differential margin narrowed somewhat, but prices at the East African auctions were still above those current in New York. To obtain a true picture, therefore, of price trends for coffee in recent years it is essential to study the New York prices. Santos 4 provides a guide to the world values of the *Arabica* "mild" coffees, and Rio 7 a guide for the *Robusta* coffees. The following table, based on Table 40 in the Commonwealth Economic Committee's "Plantation Crops" (1950), gives the average annual price of these two coffees in the New York spot market in U.S.A. cents per lb. for the years 1936-49.

Year	*Santos* 4	*Rio* 7
1936	9·45	7·35
1937	11·04	8·70
1938	7·66	4·85
1939	7·38	5·09
1940	7·10	5·16
1941	11·34	7·94
1942-45*	13·37	9·37
1946	18·31	13·32
1947	26·72	13·56
1948	27·06	14·33
1949	31·76	21·59

* For the years 1942-45 the prices are the maximum prices laid down by the Office of Price Administration.

COLONIAL PRODUCTION

The largest coffee-growing areas in the Colonial territories are in the three East African territories, where total production of coffee was 1,227,000 cwt. in 1950-51, as against 896,626 cwt. in 1938. This increase is due to a higher output in Uganda, which increased its production from 280,000 cwt. to 740,000 cwt.; in the same period Kenya's output dropped from 320,000 cwt. to 195,000 cwt. and that of Tanganyika from 319,000 to 294,000 cwt.

There are important differences in the manner coffee is grown in the three territories. In Kenya, except for an insignificant quantity, it is an estate crop, and only *Arabica* is grown. In Uganda there are a few estates, owned by Europeans or Indians, but the bulk of the crop is grown by Africans. The estates grow a little *Arabica* but their main crop is *Robusta* prepared by the "wet" method. The Africans grow principally *Robusta*, which has to compete in the world market with "Brazil" coffees; but they also grow some *Arabica*, notably at Bugishu, where the species has been cultivated since 1912. The Bugishu coffee crop has been greatly improved under a centralised processing and marketing scheme which was introduced by the Agricultural Department in 1932, and this coffee has found a ready market in London.

In Tanganyika coffee is grown by both Europeans and Africans. European production is primarily *Arabica*, which is also grown by the members of the Kilimanjaro Native Co-operative Union and there is some *Arabica*, prepared by the "dry" method, grown in Bukoba; the bulk of African production, however, is *Robusta*.

There has been in recent years a marked change in the method of selling East African coffee. Selling by individual producers has come to be replaced by organised marketing, a development which had started before the war and was hastened as a result of wartime conditions. With the introduction of bulk buying by the United Kingdom, it became expedient to establish selling by central marketing organisations, and co-operative selling agencies and marketing boards were set up. There is little doubt that these centralised marketing agencies have come to stay, whatever the system by which the United Kingdom buys. The Kenya Coffee Marketing Board is responsible for the marketing not only of the Kenya but also of part of the Tanganyika crop. African-grown coffee from Kilimanjaro is sold by the Moshi Native Coffee Board, through the agency of the Tanganyika Coffee Growers Association. In Kenya, as well as Tanganyika, growers have their own curing mill, run likewise on a co-operative basis. The

Tanganyika Coffee Curing Company, whose shares are held in equal parts by the Tanganyika Coffee Growers Association and the Moshi Native Coffee Board, cures both European-grown and African-grown mild coffee. Great improvement, especially of African-grown coffee, is expected to be achieved by the introduction of centralised mechanical processing in both Uganda and Tanganyika.

Compared with East Africa, production in the British West Indies, where coffee has been cultivated for some 200 years, is now of minor importance. Jamaica produces annually about 50,000 cwt. of which a small proportion grown in the Blue Mountains, at a height of 2,000 feet, ranks amongst the most highly priced mild coffees. In Trinidad both *Arabica* and *Robusta* are grown, but coffee is not one of the more important crops of the colony.

There is also a small production and export of coffee from the British West African territories, principally the Gold Coast and Sierra Leone. But this has never assumed great importance either in the total trade of the colonies concerned or in the total colonial contribution to world supplies.

PRODUCTION OF COFFEE IN COLONIAL TERRITORIES

('000 metric tons)

	1934-38 *Average*	1947	1948	1949
Kenya	18·4	9·1	14·4†	6·7†
Uganda	10·6*	20·9	38·7	25 4
Tanganyika ..	14·9*	13·6	12·8	15·2
Gold Coast ..	..	0·8	0·6	0·6
Sierra Leone ..	0·1	0·3	0·4	0·3
Jamaica	3·9‡	2·7	2·7	2·7
Trinidad	0·5	0·6*	0·6*	1·8
British Guiana ..	0·1*	0·4	..	..
Federation of Malaya ..	..	2·6	2·1	2·8
North Borneo ..	..	..	0·1	0·1
New Hebrides ..	0·4	0·4*	0·1*	0·2*

* Exports.

† Estate production only.

‡ Exports, 1935-39.

COTTON

VARIETIES AND METHODS OF CULTIVATION

Cotton, a vegetable fibre, is one of the principal export crops in the world. It is derived from several widely different species of the genus Gossypium. The plant is perennial, but usually it is cultivated as an annual crop.

The cotton fruit, or seed pods, known as "bolls," on reaching maturity, burst open disclosing the "seed cotton," which consists of the seeds to which the cotton fibres are attached. This seed cotton is mostly picked by hand, but mechanised methods have been introduced in the United States, though not as yet on a very extensive scale. The seed cotton is sent to the ginnery to be cleaned, and then ginned, i.e., subjected to a process by which the fibre, known as cotton lint, is separated from the seed. The cotton seed is a valuable oil seed, and particulars will be found under that heading. As a rough general rule, it can be taken that seed cotton yields 30 per cent of its weight in lint, but there are significant variations between different varieties of plant and different methods of ginning. Although mechanical picking reduces cost to a very great extent, the chief drawback is the fact that the mechanical picker not only collects cotton but, in the course of its operation, collects a considerable amount of trash, i.e., husk of the boll, grass, etc., which reduces the grade (appearance) materially. In the process of ginning this trash is very difficult to remove, as the gin's objective is to remove the seed from the lint, so that before mechanical picking can become general it will be necessary to devise machinery which can provide a cleaning process before ginning. Mechanical picking is most useful at present in areas of high yields of short-staple cotton.

The cotton lint is compressed into bales, and in this form it is exported to the manufacturing countries, where it is spun into yarn, or put to other uses. The weight of the bales varies in different countries. It is usually 400 lb. in British colonies but for statistical purposes all data are usually converted into bales of 478 lb. (the American statistical "bale").

TYPES AND MARKET GRADES

The quality of the cotton, and consequently its value, depends mainly on the length and hair-weight of the "staple" (i.e., the individual fibre), which vary greatly according to the species of Gossypium from which it is derived. In addition to length and hair-weight, cotton is also graded for appearance by colour, sheen and amount of impurities, etc. Quality is also determined by the variability of growing conditions; cotton grown under irrigation with its more controlled conditions has a considerable advantage over cotton depending on rainfall, particularly in areas of uncertain rainfall, such as the tropical Colonies. The various kinds of cotton are divided into three main classes according to their staple length and are classified by the counts (fineness of thread) spun. In the United Kingdom these are described as coarse, medium and fine. For fine counts the long staples, 1¼ inches to 2 inches or more, which are also of the finest fibre, are used, while for medium counts staples ranging from 15/16 inch to 1¼ inch are used, these counts being the most frequently employed by the United Kingdom and other Western Countries' industries. For coarse counts the shorter cottons, ranging from 15/16 inch down to ¾ inch are used.

The finest cotton is the "Sea Island" which is grown exclusively in certain British West Indian islands, and has a staple of from 1¾ inches to 2¼ inches.

The other principal variety in the Fine Class is Egyptian cotton, of which the longer staple types have a staple of 1¼ inches to 1¾ inches, and the shorter types of 1⅛ inches to 1¼ inches. The latter are used extensively in the production of medium counts. The greater part of the cotton grown in the Anglo-Egyptian Sudan is also of the Fine Egyptian Class.

High grade comparatively long staple cottons (1⅛ inches to 1¼ inches) from U.S.A. and certain South American countries, together with a portion of the Uganda crop (B.P. 52), while not spinning particularly fine counts, are used in specialised trades where appearance of yarn is of the utmost importance, notably the hosiery (knitwear) trade.

The greater part of United States production consists of Upland Cotton, which belongs to the Medium Class. Brazilian, Peruvian, Argentinian and Mexican cotton, although longer, can in general be substituted for American Medium Staple. Of cotton grown in the Colonial Empire, Nigerian cotton is a perfect substitute for American Medium Staple, while some East African cotton, though slightly longer in staple, can also be so used.

The principal varieties in the Short Staple Class are Indian and Chinese cotton, with a staple of ⅜ inch to ¾ inch. However, in India there has been a tendency in recent years to grow more of the medium staple varieties, and a large percentage of the crops produced, especially in the Punjab, now range from ⅞ inch to 1 inch in staple length.

WORLD PRODUCTION AND WORLD CONSUMPTION

Cotton is grown in a great many countries, but seven countries—the United States, Brazil, Egypt, India, Pakistan, Russia and China, produce about nine-tenths of world output, the United States alone being responsible for about 50 per cent of world production and for as much as 43 per cent of world exports in 1948–49 as against corresponding pre-war averages of 41 per cent and 39 per cent. Both before and since the war, production of cotton in the United States has at times been reduced by Government-decreed acreage restrictions.

Average world production before the war was 30·7 million bales per annum (1934–38), but owing to a shrinkage in acreage it dropped considerably during the war, reaching its lowest level with 19,890,000 bales in 1945–46. In 1948-49 it rose to 28,600,000 bales and exceeded world consumption by one to two million bales, but fell again to 27,500,000 bales in 1949-50. In the earlier post-war years, consumption surpassed production, and was partly met from accumulated stocks.

The average yield of raw cotton per acre varies considerably from one season to another, owing to variations in weather conditions, ravages by cotton pests and incidence of plant diseases. There are also great differences between countries. The yield from irrigated land is usually higher and more uniform than that of rain-grown cotton. The difference in yields between countries is shown by the following figures :—

(*Yield in lbs. per acre*, 1943–47 *average*)

Egypt	489
Anglo-Egyptian Sudan	
Irrigated	350
Raingrown	83
U.S.A.	262
British West Indies	126
Uganda	86

A considerable proportion of the cotton produced is used in manufacture in the producing countries; thus Russia and China use the greater part of their output domestically, while the United States, India and Brazil also have important cotton textile industries. Under 40 per cent of world output was exported in 1950, the rest being consumed in the producing countries, or going into stock. The largest exporters are the United States, Egypt and Brazil. The Indian sub-continent which, before the war, was one of the principal exporting areas of raw cotton, has greatly reduced its exports in recent years (coming mostly from Pakistan), because of increased domestic consumption.

The principal cotton-importing countries before the war were Japan and the United Kingdom, accounting between them for about half the world's imports, while the other half was for the greater part taken up by other European countries.

Owing to the temporary elimination of Japan as a large buyer, the United Kingdom has been since the war by far the largest individual importer of cotton, despite the fact that consumption of United Kingdom cotton mills was estimated in 1948–49 at only 74 per cent of the pre-war level, having been even lower in the earlier post-war years.

Cotton is used primarily in cloth, household goods and industry, the proportions between these three in the United Kingdom in 1938 being approximately 5 : 2 : 3. The consumption of cotton per head tends to be higher in more advanced countries, partly owing to the bigger demand for industrial purposes. United States consumption per head before the war, for example, was one-third higher than that of the United Kingdom and nearly eight times that of China. The demand for cotton, therefore, since it depends primarily on the level of consumer prosperity, does not tend to fluctuate as widely as the demand for those raw materials which go mainly into industrial goods. As world prosperity increases, particularly in more backward countries, the demand for cotton may be expected to rise substantially. The demand for cotton in the future will, however, be affected to some extent by the production of substitutes. Synthetic fibre production before the war had reached 20 per cent of cotton production and there have been substantial increases in capacity since then. The considerable price advantage of rayon over cotton at the present time encourages a tendency to substitution, although there are strong consumer preferences for cotton in many lines. The recent development of superior synthetic fibres such as nylon, although unlikely in the near future to challenge cotton in bulk uses, may well affect the demand for certain special types particularly amongst the finer cottons.

Although the demand for cotton has only fluctuated to a minor degree over the past 20 years, there have been violent fluctuations in the world prices of cotton, mainly due to the fact that reduction in demand for cotton was not accompanied by corresponding immediate reduction in production. Producers, in fact, in order to try to maintain their money income tended to produce more cotton as prices fell, thus forcing the price even lower. The most serious decline in prices occurred in the 1929 slump when the American producers' price dropped from 17 cents in 1929 to less than 6 cents in 1932. The price did not recover to its 1930 level until after the outbreak of the war. Colonial cotton producers suffered a similar reduction in their incomes. The United States Government undertook a series of measures in an attempt to raise the price of cotton from the low level it touched in 1932. Huge quantities of cotton were bought up and held off the market, farmers were paid for land ploughed out of cotton and legal quotas were introduced with a prohibitive tax on all cotton sold in excess of quotas. These measures helped to raise the world price to about 12 cents per pound by 1936 which, while benefiting the United States growers, allowed Brazil to steal part of the United States export market in raw cotton. A bumper yield of cotton in 1937 sent the price down again and the United States Government introduced its price support loan scheme. Measures to increase the consumption of cotton were also undertaken.

The war led to a substantial increase in domestic consumption in the United States, but the Government still had a substantial surplus on its hands by the end of the war and similar surpluses were also held in Brazil and Egypt. The replacement boom which followed the war, however, substantially removed this surplus so that by 1948 supply and demand were in reasonable equilibrium. In the early years after the war the United States did not re-introduce acreage control, but it continued to operate a price support scheme by which the price of cotton was prevented from falling below a defined parity price which was in the region of 30 cents per pound during this period. This price tended to encourage production in the United States and in other countries. At the same time consumption of cotton was being restricted in many countries owing to the shortage of currency for purchasing raw material supplies. As a result by 1949 production was again in excess of consumption. The International Cotton Advisory Committee considered this problem in 1949 and recommended that steps should be taken to encourage the consumption of cotton and that consideration should be given to other methods of bringing supply and demand into equilibrium. Meanwhile the United States had decided to re-introduce acreage control for its 1950 crop as a result of which U.S. production and cotton exports fell sharply, leading to a violent upward movement in prices at the end of 1950 and the early months of 1951. Consequently all acreage restrictions were lifted in 1951, and the 1951-52 crop is expected to be at the 1949-50 level.

COLONIAL PRODUCTION

The total Colonial production of cotton represents less than 2 per cent of world production. Nevertheless, not only is cotton of considerable importance in the economy of some of the producing Colonies, but Colonial production makes an important contribution to the raw material supply of certain manufacturing countries, most of all India and the United Kingdom. The latter has drawn approximately 5 per cent of its raw cotton supplies from Colonial sources in post-war years. Efforts are being made to increase cotton production in the Colonies in order to supply a larger share of United Kingdom requirements in the future.

The principal cotton-growing Colonies are :—

PRODUCTION OF COTTON
('000 bales of 478 lb.)

	1938-39	1948-49	1949-50	1950-51
Uganda	254	327	287	290
Tanganyika ..	37	45	43	42
Nyasaland ..	4	2	9	7
Kenya	8	8	7	8
Nigeria	30	60	70	85
British West Indies ..	5	6	5	5

The following table shows the main planting and picking dates for cotton in the various colonies :—

	Planting	*Picking*
Uganda	June–August	Dec.–Feb.
Tanganyika		
Lake Province ..	Nov.–Jan.	April–June
Eastern Province..	Feb.–April	August–Oct.
Nyasaland		
Lower River ..	Jan.–Feb.	July–Oct.
Central Areas ..	Nov.–Dec.	May–August
North Nyasa ..	March–May	Sept.–Dec.
Nigeria	June–July	Dec.–Feb.
West Indies		
Montserrat and St. Kitts ..	March–May	July–Oct.
Other Islands ..	August–Sept.	Jan.–April

Uganda is the most important Colonial cotton producing territory, and cotton is the Protectorate's principal cash crop. Cotton lint and cotton seed together accounted before the war for about 80 per cent of total domestic exports by value. During the war the acreage under cotton was reduced, and more land was given over to food crops or other commercial crops, particularly coffee. In recent years, cotton lint and cotton seed have represented about 60 per cent of total exports. Although a lesser degree of dependence on a single crop must be regarded as desirable, an increase in cotton output as well as an improvement in quality are recognised objectives of policy.

Uganda cotton is predominantly a long staple of 1⅛ inches to 1⅜ inches originated by selection from imported varieties. It went before the war mainly to India, whence part was re-exported to Japan. Japan also imported cotton directly from Uganda. Since the war a large proportion of the crop has been exported to the United Kingdom, but India is still the most important buyer. Owing to its long staple length Uganda cotton cannot be regarded as a direct substitute for the American-type cotton which is used mostly by Lancashire cotton mills, but there is nevertheless a ready market for Uganda's cotton in the United Kingdom. Research on cotton breeding and disease resistance in Uganda has been conducted for many years by the Department of Agriculture, but future work in this field will be carried out mainly at the Empire Cotton Growing Corporation's new Central Research Station at Namulonge in Uganda. Reorganisation of the ginning industry, with a view to turning out a more even product, is under consideration.

The cotton produced in Tanganyika, Nyasaland and Kenya is of the Medium Staple type. It is an important crop in certain areas of Tanganyika where increased production is being encouraged. In Sukumaland a large-scale resettlement scheme has been initiated, with a view to relieving over-crowding by the redemption of tsetse-ridden areas. Cotton will be the main cash crop in this area, and improved methods of cultivation will be introduced both in the new areas and in the areas which are relieved of excessive pressure of population. In all three countries measures to ensure better methods of cultivation are being applied.

Nigeria is in a somewhat different position from other cotton-growing Colonies, because a considerable part of the crop is used by the local hand-spinning and weaving industry to supply internal requirements of cloth. Nigerian cotton, which is a Medium Staple, is a direct substitute for American cotton, and before the war was exported mainly to the United Kingdom, which at present is its only market outside Nigeria. Two experts from the Empire Cotton Growing Corporation who investigated the production in 1947 found land in Northern Nigeria which in their view offers excellent conditions for the extension of the cotton crop, but roads, transport and markets have first to be provided. It will also be necessary to settle Africans from more congested areas, and to provide mechanical equipment to help them to prepare the land. All this will require time. A Development Team has been appointed to carry out the recommendations of these experts with the objective of eventually trebling Nigeria's output of cotton.

In the West Indies, Sea Island cotton is grown in St. Vincent, Barbados and the Leeward Islands (Montserrat, Antigua, Nevis, St. Kitts, Anguilla, Barbuda and the Virgin Islands) ; a small amount of a perennial medium staple cotton known as Marie Galante is also produced in a few small islands in the Grenadines. Sea Island cotton is the finest in the world, and the West Indies is the only source of supply. It is characterised by great length of staple combined with extreme fineness and strength and is capable of being spun into yarns with very high counts and woven into fabrics of the finest texture. Two main qualities are produced in each of which there are a number of grades :—

1. Superfine, grown in St. Vincent and Barbados, with a staple of 2 inches and over.
2. M S I (Montserrat Sea Island after the island in which the strain was originated), grown in the Leeward Islands, with a staple of 1¾ inches.

The various strains originally introduced in 1903-04 have been greatly improved by breeding and selection and the seed supply is very efficiently controlled by the local Agricultural Department. Sea Island cotton is the principal export from Montserrat and Nevis and an important export from St. Vincent, Antigua and St. Kitts. Production is limited by the size of the islands and to some extent by the special characteristics of the cotton and its relatively high price.

Small quantities of cotton are also grown in Aden and Cyprus, while experiments are taking place in the Gold Coast, Fiji and British Honduras, with a view to introducing cotton cultivation. In no case, however, is the production likely to be of major importance.

Work is continuing in all Colonial territories to develop new strains of cotton in order to increase yields and resistance to pests and diseases. Experiments also continue on the uses of insecticides, fertilizers, etc., and efforts are being made in many Colonies to improve quality by stricter control of seed distribution, better sorting of the seed cotton prior to ginning, better ginning, and improved marketing arrangements.

The Empire Cotton Growing Corporation, which was incorporated by Royal Charter in November, 1921, to stimulate cotton production in the Empire, has played a very active part in developing Colonial cotton production. This body staffs and maintains experimental stations in several cotton-growing areas of the Empire investigating such problems as the breeding of the varieties of cotton most suitable for each district, and the control of pests and diseases. The Corporation has also made grants to Colonial Governments for the development of cotton growing, and has paid for supplementary agricultural officers until it has been found possible to absorb them on the regular establishments. The Corporation's new Central Research Station at Namulonge in Uganda replaces a former long-range research station which was maintained in Trinidad from 1926 to 1949, where much fundamental work on cotton breeding, genetics and physiology was carried out.

MARKETING OF COLONIAL COTTON

Important changes have been introduced in recent years in the marketing of raw cotton. Before the war there was a world-wide free market in cotton largely dominated by the Liverpool Cotton Exchange where prices fluctuated from day to day as information on possible changes in supply and demand was received. Since the war the balance of payments difficulties of all the major cotton importing countries have destroyed the free market and a large proportion of the world's cotton is now bought or sold by Government agencies. In the United Kingdom the Liverpool Cotton Exchange has been closed and the Raw Cotton Commission now imports and distributes all the requirements of United Kingdom users. The price of American cotton is now primarily determined by the New York Cotton Exchange, but the American Government operates a farm price support programme which has helped materially to maintain prices. Egyptian prices are determined by the Alexandria market.

Colonial cotton since the war has been sold mostly by bulk deals between Colonial Governments or Government-appointed selling agencies and the Raw Cotton Commission and, in the case of East African cotton, the Indian Government. Nigeria, for example, has set up a statutory Cotton Marketing Board which is responsible for the sale of her crop outside the territory, while Uganda has appointed the Uganda Lint Cotton Marketing Board for the same purpose. The Raw Cotton Commission has expressed its willingness to enter into long-term agreements with Colonial cotton producers and has already signed such agreements with the Nigerian Cotton Marketing Board and the Nyasaland Government, while negotiations are taking place with other Colonial producers. These agreements contain an " escalator " clause restricting the price movement in any year to a certain percentage above or below the price of the previous year. Subject to this restriction, prices are normally determined by the prices paid by the Raw Cotton Commission for comparable cottons in other markets.

ESSENTIAL OILS

Essential oils (or volatile oils) are volatile aromatic substances, usually but not always liquid, obtained from numerous grasses, plants, shrubs and trees. Whereas vegetable fixed oils are obtained from the seeds or fruits only, essential oils are furnished by various parts of the plant—flowers, fruit, seeds, leaves, bark, wood or roots—all being employed according to the particular oil to be produced. Essential oils are used principally as constituents of drugs, perfumes, cosmetics, perfumed soap, etc., and in food flavourings and the synthetic chemical industry.

Several methods are available for obtaining essential oils involving, (*a*) steam distillation, (*b*) expression (confined to citrus oils), or (*c*) extraction by volatile or non-volatile solvents (usually employed for flowers only). Of these methods, the first is that in most general use. It may be employed in all cases except those where decomposition of the oil or impairment of its odour would result from the relatively high temperatures inseparable from the process.

There are nearly 20 essential oils listed as separate items in the trade returns of the colonies as a whole. In some cases the colonial production is only a small fraction of the world's supply, in others it amounts to a considerable proportion of the quantity entering world trade and in four cases—bay, clove stem, lime and pimento—the Colonies are practically the sole source of supply. Whilst essential oils can never compare in importance with the major Colonial products, they provide a useful secondary line of production and source of income to a number of colonies, and in some of the smaller colonies (e.g., Dominica and the Seychelles) they are an important feature of the economy.

Tables 98 and 99* contain a list of the principal exports for the years 1938, 1939, 1946, 1947, 1948 and 1949. These figures will serve equally well to indicate total production, since domestic consumption in most cases is negligible.

The following notes deal briefly with those essential oils which are of most importance in the Colonial Empire.

BAY OIL

Bay oil is distilled from the leaves of *Pimenta acris*. It is used in toilet and hair preparations, notably as the basic perfume in bay rum, and to a limited extent in food flavourings and perfumes.

Apart from a small production in Puerto Rico, Dominica is now the sole source of supply. Exports from Dominica in the years 1946-48 averaged just under 12½ tons, and the United States of America took the bulk of the production.

CEDARWOOD OIL

Cedarwood oil is derived from two species of juniper. The chief source of supply is the United States of America, where the oil is distilled from *Juniperus Virginiana*, but it is also produced in Kenya from the *J. procera*. Both oils are used in insecticides and fumigants, in soaps (to mask the odour), and as a fixative in perfumery. A special grade is used for oil immersion lenses in microscopy, but for this purpose the American oil is more suitable as East African oil contains too much of the sesquiterpene alcohol, cedrol.

Annual production in America is about 100 tons. Production in Kenya is far smaller. In both cases waste (principally sawdust) from cedarwood box and pencil manufacture provides the raw material, and the distilleries are alongside or close to sawmills. The United Kingdom is the main market for the Kenya product, but there are also small markets in Australia and the United States. Unfortunately the demand appears to fluctuate wildly.

CINNAMON LEAF OIL

Cinnamon leaf oil is distilled from the leaves of *Cinnamonum zeylanicum*. The oil is used in the manufacture of soap, for perfumery, and as a source of eugenol for use as such in dentistry or for conversion to iso-eugenol (used in perfumery) and vanillin. However, as a raw material for vanillin manufacture it suffers severe competition from the clove oils, which manufacturers prefer, and in the United States of America and Canada from lignin.

The original source of production is Ceylon, but the tree was introduced into the Seychelles in 1770. There it has established itself over an area estimated at 4,000 acres on the island of Mahé, while it has also been introduced in recent years on the island of Praslin, where it is spreading very slowly. The tree is to a large extent confined to the higher altitudes. Production of the oil is essentially a cottage industry in the Seychelles and the distillation plants used are, in most cases, very primitive. The Ceylon type oil is generally preferred to the Seychelles product, although it is not strictly comparable as the Ceylon type contains a considerable amount of safrole which is not present in the Seychelles oil, while the latter has a higher percentage of phenols, mostly eugenol. The principal markets are the United States of America and the United Kingdom, though a somewhat uncertain market has recently been found in Australia. Annual exports in the five years 1944-48 averaged 43 tons (£22,000) from the Seychelles, but in 1949 reached the record figure of over 68 tons.

CINNAMON OIL

Two distinct oils are known by this name in different parts of the world—the *cinnamon bark oil* distilled from the dried inner bark of the *Cinnamonum zeylanicum* from Ceylon and the Seychelles, and the oil (known also as cassia oil) from the leaves and twigs of the *Cinnamonum cassia* produced in China. Seychelles cinnamon bark has been exported in small quantities for many years as chips, a product very much inferior to the Ceylon quills; but recently there has been little market for the Seychelles product.

CITRUS OILS

(*a*) *Grapefruit oil* is produced from the peel of the grapefruit, *Citrus maxima*, as a by-product of the fruit processing industry. The oil is used for flavouring soft drinks and, to a limited extent, in lotions and eau de cologne.

It is a comparatively new oil, at present chiefly produced in the United States of America, but since the war small quantities have been exported from Dominica, Jamaica and Trinidad.

(*b*) *Lemon oil* is produced from the peel of the lemon *Citrus limonia* on a large scale as a by-product from the manufacture of lemon juice. It is employed chiefly for flavouring bakery goods, soft drinks and sweets, but also in perfumes, toilet waters and soap.

Sicily and the United States of America produce the bulk of world output, amounting to 1,500,000 to 1,800,000 lb. or more per annum. There have been small post-war exports from Jamaica.

(*c*) *Lime oil* is produced from the peel of the lime, *Citrus avrantiifolia* by two processes, the ecuelle process (hand pressure) and distillation, the latter method providing the bulk of the supplies. The oil is principally used in flavouring soft drinks and sweets, though small amounts are used in colognes and of recent years it has been used in a hair tonic, limaco, manufactured locally in the West Indies.

It is produced almost exclusively in the Colonial Empire as a by-product of the lime juice industry, though there is some small production in Mexico and Florida. Dominica is the principal source, and it forms a major export from the colony; for the six years 1942-47 the value of the distilled and ecuelled oil exported averaged £46,846 or 27·5 per cent of the colony's total exports. Appreciable quantities have also been exported in recent years from Jamaica and Trinidad; while Grenada, British Guiana, the Gold Coast and St. Lucia all export varying amounts. The United Kingdom and the United States of America are the principal markets with Canada taking the bulk of the remaining supplies.

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* Pages 244 and 246.

(*d*) *Orange* (*bitter*) *oil* is produced from the peel of the bitter orange, *Citrus aurantium* var. *amara*. It is used in medicinal and bakery flavourings and in soft drinks, sweets, perfumery, soap, cosmetics and lotions, though its bitter taste makes it less suitable for flavourings than the oil of the sweet orange.

World production before the war averaged approximately 25 tons annually. Sicily and Southern Italy are the principal sources of supply, but Jamaica exported about 5 tons annually or 20 per cent of the total. Jamaica has maintained its production, and Tanganyika has now entered the market with an export of 2-3 tons per year.

(*e*) *Orange* (*sweet*) *oil* is produced in considerable amount from the peel of the sweet orange, *Citrus Sinensis*. Its uses are the same as those of the bitter oil.

World production is far larger than of the bitter oil. It is estimated at approximately 800 tons per annum, chiefly from French Guinea and Brazil, with smaller amounts from California, South Africa and Southern Rhodesia, the last producing what is generally considered the highest quality oil. The colonial contribution is small and comes primarily from Jamaica, though Dominica also produces and exports very limited quantities.

CLOVE OILS

Three kinds of oil are distilled from different parts of the clove *Eugenia caryophyllus*, i.e., clove bud oil, clove stem oil and clove leaf oil. All three, like cinnamon leaf oil, contain eugenol which is used for the manufacture of vanillin; but, although somewhat superior in quality, clove bud oil is too costly to compete commercially with the other oils for this purpose and very little of it is produced. These oils enter into a number of pharmaceutical preparations and have many applications in industry as a disinfectant and preservative, in tooth pastes and mouth washes, as a flavour in foods and confectionery, and in soap and perfumery.

Cloves are at present produced for export in Zanzibar and Pemba and, to a lesser extent in Madagascar and in Amboyna, Indonesia. Considerable quantities of stem oil are produced in Zanzibar and Pemba, while in Madagascar there is a large production of leaf oil. Future production of cloves and clove stem oil in Zanzibar and Pemba is, however, likely to be affected by the serious outbreak of the "Sudden Death" disease. In recent years the average annual export of clove leaf oil from Madagascar has been about 200 tons. In 1949 and 1950 the export of clove stem oil from Zanzibar was 143 tons and 154 tons. The average value of the Zanzibar exports in those years has been just under £100,000, and clove oils have been the fourth export in order of relative importance. The United Kingdom forms Zanzibar's principal market.

GERANIUM OIL

Geranium oil is distilled from the leaves and stems of various species of *Pelargonium*, notably from *Pelargonium graveolens*. It is used in perfumery, soap and flavourings. But the geographical and botanical sources of geranium oils have a marked effect on their odour and, since perfumers are reluctant to change well-established formulae, it is essential that the product should be of uniform high quality to prove readily acceptable.

The world's annual production of geranium oil is 100-130 tons, chiefly from Reunion (70-90 tons) and Algeria (20-30 tons) with smaller amounts produced in France, Spain, Italy, the Belgian Congo and Kenya. In Kenya two types of oil can be produced—"Mawah" and oil of the "Bourbon" type. The "Bourbon" type of oil is superior to the "Mawah." "Mawah" finds its principal market in the United States of America. Production in Kenya reached its peak in 1938 with a total export of both types of oils of 5½ tons. There has been no recovery since the war; exports of the "Bourbon" type have declined, and exports of "Mawah" were non-existent in both 1947 and 1948. Total exports of geranium oil from Kenya in 1949 were just over 3 tons.

LEMONGRASS OIL

Lemongrass oil is distilled from *Cymbopogon flexuosus* and *C. citratus*. It is widely used in the soap and perfumery trades and for the extraction of citral. Research has recently been conducted into the possibilities of using citral for the synthesis of Vitamin A.

World production of lemongrass oil averages 200-300 tons annually. By far the major portion of this supply is produced from *C. flexuosus* in Southern India. *C. flexuosus* produces a soluble oil which is more in demand for the oil's present uses in the soap and perfumery trades. *C. citratus* is grown both wild and cultivated in a large number of countries including Java, Madagascar and Guatemala and is the source of such colonial supplies as there are. Unfortunately the oil from *C. citratus* is insoluble, and is difficult to dispose of when supplies from *C. flexuosus* are plentiful. On the other hand, solubility is of no consequence when the oil is to be used as a source of citral.

The oil was produced commercially in Uganda as long ago as 1909, but there is no distillation carried on there now. The Seychelles also used to produce it and Nyasaland still does so on a very small scale. But Tanganyika, where the grass is grown for soil conservation measures, is the only important colonial source.

The United States of America is the principal market, absorbing about 60 per cent of world supplies. The United Kingdom takes about 30 per cent and the remainder is imported by Switzerland, France and Sweden and one or two other countries.

PATCHOULI OIL

Patchouli oil is obtained by the distillation of the dried leaves of the *Pogostemon patchouli*, and of the Java species *P. Heyneanus*, the source of Sumatran patchouli oil. Both wild and cultivated plants are used. The oil is used in perfumery, mainly as a fixative for more costly perfumes, and for scenting soap.

Formerly Malaya was the chief source of this oil (there was an excess of exports over imports of over 18 tons in 1934), but immediately prior to the war Sumatra became the chief producer and Malaya's exportable surplus fell to 3-4 tons annually. Variable but small quantities were also exported before the war from the Seychelles. The oils from the three sources are distinguishable. The Malayan oil is of the highest quality and in most general demand. When during and immediately after the war the Malayan and Sumatran oils were not available, exports from the Seychelles greatly increased both in quantity and value, as is shown by the following table:—

Exports of Patchouli oil from the Seychelles

	1944	1945	1946	1947	1948	1949	1950
Quantity, (Kilogrammes)	1,559	2,591	5,970	9,005	1,927	1,644	4,616
Value (£)	5,114	30,483	135,496	47,304	6,858	4,783	57,744

Production on a limited scale of an oil similar to that from the Seychelles has commenced in Nyasaland, and 140 lb. were exported in 1947.

PIMENTO OIL

Pimento oil is prepared from *Pimenta officinalis*, chiefly from the dried unripe berry though considerable amounts of leaves are also distilled, furnishing an inferior oil. Both oils are rich in eugenol and are used principally as a flavouring in baked goods, sausages and sauces, but also in perfumery, soaps, cosmetics and pharmaceutical preparations.

Jamaica is the only source of supply of pimento, and the only producer of pimento leaf oil, for which the United States of America is the chief market. All the berry oil sold on the market is either distilled in England or is leaf oil "faked" on the Continent.

OTHER ESSENTIAL OILS

A number of other essential oils are known to be produced in colonial territories ; for instance, in Cyprus, where a factory was recently established for the distillation of essential oils (obtaining most of its basic requirements from its own plantations), the following were reported to be available in 1948—True Anisel, Bay Laurel, Cummin, Geranium, Juniper Berry, English Lavender, Myrtle, Neroli, Origanum, Origanum Maru, Peppermint, Petitgrain, Rosemary, Sage, Thyme and Sweet Almond. In Kenya some 1,600 acres of non-native agricultural land are devoted to growing crops for the production of essential oils ; these include a number of oils produced on a small or experimental basis additional to the cedarwood and geranium oils mentioned above. There is also some production in Tanganyika. In the Seychelles peppermint oil from *Mentha arvensis* and both *Eucalyptus staigeriana* and *Eucalyptus citriodora* are irregularly produced and exported. The production of eucalyptus oil has started in Nyasaland, and in 1950 there was an export of 455 lb. (valued at £200). Experimental production of Neroli (distilled from the flowers of the bitter orange tree, *Citrus aurantium* var. *amara*) has commenced in Northern Rhodesia. During the war, when supplies from Indonesia were unobtainable, exports of nutmeg oil from Grenada reached a peak of 1½ tons in 1945.

FRUIT, FRUIT PRODUCTS AND NUTS USED AS FRUIT

Very large quantities of various kinds of fruits are grown in the Colonial Empire. Of these bananas, plantains and mangoes are part of the staple diet in several territories, while the remainder are grown either as supplementary foodstuffs or for export. The only colonial fruits of significance in either world or United Kingdom trade are bananas, citrus and pineapples.

BANANAS

Cultivation

The banana is a large, quick-growing, herbaceous plant of the genus *Musa*. Cultivated bananas are derived from more than one species. The plant grows to a height of 12–15 feet, and the first bunches of fruit may be obtained about a year after planting.

The banana and the closely allied plantain, which needs to be cooked before being eaten, are cultivated in nearly all tropical countries. Plantains of one variety or another are grown as local food crops in many parts of the Colonial Empire—in the West Indies, in East and West Africa, in the Far East and in the Western Pacific ; for instance in the Buganda Province of Uganda and in Tanganyika, from neither of which is there any export at all, it is estimated that there are about 500,000 acres and 400,000 acres respectively under plantains. But accurate statistics of world acreages under bananas are not available as they are usually grown on small widely scattered plantations and often in mixed cultivation ; in Jamaica, for instance, plantations are owned by some 30,000 growers.

Bananas grow in " bunches " or " stems," consisting of several " hands," which are, in turn, made up of a number of individual fruits or " fingers," usually 12–16 fingers per hand. In most parts of the world statistics of the quantity of exports and imports are shown in " bunches " or " stems." The average weight of the bunch or stem varies, of course, according to the type of banana and the place of its growth between 25 lb. and 90 lb. Statistics are sometimes recorded in " count bunches," a bunch of nine hands or over being normally reckoned as a " count bunch," one of eight hands as three-quarters, one of seven hands as a half, and one of six hands as a quarter of a " count bunch." The chief exceptions to this use of " bunches " in trade statistics are Australia and the Islands of the Western Pacific, where the fruit is packed in cases averaging 90 lb. net. In any attempt to arrive at a comparative tonnage figure due regard has to be paid to these variations.

Trading Practice

There are several varieties of banana which enter world trade, and though these have different characteristics from the point of view of quality and suitability for transport, these differences are not so great as to make it necessary to distinguish between the varieties so far as trade figures are concerned. But mention should be made of the two main varieties in colonial trade. Before the war the banana principally exported from colonial territories was the " Gros Michel " ; unfortunately it has proved highly susceptible to Panama disease and Leaf Spot. So serious has Panama disease been in the West Indies that in certain of the smaller territories the industry has been practically wiped out, while in others it has suffered a serious decline. No cure for the disease has yet been found and research has concentrated rather on the production of immune varieties. The Lacatan variety, for example, is immune to Panama disease, though not to Leaf Spot ; protection can, however, be given against Leaf Spot by regular spraying and since, in August, 1948, the Ministry of Food (the sole United Kingdom buyer) expressed its willingness to accept the Lacatan variety in lieu of the Gros Michel, extensive replanting has taken place. Research continues in the hope of developing a banana immune to both Panama disease and Leaf Spot, and at the same time more easily transportable than the Lacatan variety.

Bananas, if they are to travel any distance and over routes involving changes of temperature, must be carried in specially designed refrigerated ships. Production for export consequently requires both a banana of high quality and a steady supply of fruit throughout the year in order to justify the provision of the shipping in the first place and, then, to ensure that it works to capacity. This means that, with rare exceptions, occasional surpluses of bananas over local needs cannot be exported economically. Hence the principal exporting countries are not those in which these fruits are a staple foodstuff, and fluctuations in local demand, if they occur, have little effect on the quantities available for export. Such fluctuations as occur are usually the result of natural causes ; the banana grower in Jamaica, for instance, is subject not only to the threat of disease but also to the threat of hurricanes which in recent years (in 1933 and again in 1951) have struck the island with disastrous results.

Bananas are usually exported fresh, but are occasionally dried, mainly for use by the baking industry. Drying was increasingly resorted to during the war years, when the lack of shipping seriously interfered with the export of fresh fruit, but with the return to more normal conditions the demand for the dried fruit has steadily declined.

World Trade

From the export point of view the principal supplying countries are the Honduras Republic, Guatemala, Costa Rica, Mexico, the Canary Islands, Brazil, Panama, Jamaica, and Colombia ; other important exporters are Cuba, Haiti, Formosa, the French Caribbean Islands and the Cameroons. The quantity of bananas entering world trade in the years just before the war was nearly 100 million bunches, or about 2½ million tons a year. Jamaica and Honduras were then the main sources of supply and they were followed, in order of importance, by Mexico, Brazil, Colombia, Guatemala, the Canary Islands and Cuba.

Exports from most countries declined during the war chiefly because of shortage of refrigerated shipping, and in 1943 they totalled less than three-quarters of a million tons, but since that year there has been a steady recovery and exports in 1948 were over 77 per cent of the pre-war average. There was a slight reduction in world exports in 1949.

The following table, based on those in the Commonwealth Economic Committee's Reports on " Fruit " (H.M.S.O., 1949 and 1950), shows the exports of bananas from the principal exporting countries.

EXPORTS OF BANANAS FROM THE PRINCIPAL EXPORTING COUNTRIES

Thousand tons

Country	*Annual Average or Yearly Total*							
	1924–28	1929–33	1934–38	1945	1946	1947	1948	1949
Honduras Republic ..	409	681	347	314	307	401	364	350
Guatemala	115	112	145	171	213	285	269	118
Costa Rica	201	128	103	55	110	138	187	220
Mexico	78	110	250	103	155	149	131	104
Canary Islands	160*	188	128	62	90	150	161	150
Brazil	86	137	213	65	105	125	160	165
Panama	70	63	114	51	104	91	104	92
Jamaica	239	285	303	26	83	80	87	94
Colombia	211	162	163	30	41	70	83	112
Cuba	64	66	119	26	44	43	27	15

* Approximate estimate.

The United States of America is by far the largest importer of bananas in the world, taking well over 50 per cent of the bananas entering world trade before the war and an increased percentage both during and since the war. While its imports were greatly reduced quantitatively during the war, they were by 1948 almost identical in size with those of 1938, approximately 1,184,000 tons. Up to 20 years ago the United States was the chief market for Jamaican supplies, at a time when United Kingdom imports from Empire sources were comparatively small. But a striking increase in United Kingdom imports from Empire sources resulted from the introduction of the preference in 1932. In 1935, 80 per cent of United Kingdom banana imports came from Empire suppliers, and in 1937, when total imports reached the record figure of 327,000 tons (22½ million bunches), Empire sources contributed as much as 88 per cent. During this period the United Kingdom's share in Jamaican supplies increased to 80 per cent, Canada's share remained steady at about 12 per cent and the United States of America eventually ceased to import from this source.

Thus before the war the United Kingdom became the most important market for colonial supplies. The following table shows the imports of fresh bananas into the United Kingdom in recent years compared with pre-war :—

UNITED KINGDOM IMPORTS OF FRESH BANANAS

tons

Country of Origin	1934–38 *average*	1946	1947	1948	1949	1950
Jamaica	204,000	49,600	61,800	67,250	72,950	65,828
British Cameroons ..	4,500	5,600	18,100	47,928	55,402	59,226
Canary Islands	9,500	44,600	24,700	33,774	24,474	10,180
Brazil.	33,500	nil	nil	nil	nil	nil
Colombia	24,000	,,	,,	,,	,,	,,
Costa Rica	3,000	,,	,,	,,	,,	,,
Guatemala	6,000	,,	,,	,,	,,	,,
Honduras, Republic of ..	13,000	,,	,,	,,	,,	,,
Other countries	2,000	,,	,,	5	71	2,794
Total ..	299,500	99,800	104,600	148,957	152,897	138,028

Colonial Production and Exports

So far as the colonies are concerned, Jamaica and the Cameroons were the principal exporters in 1950, though appreciable quantities were also shipped from Fiji and Tonga, and bananas figured to a greater or lesser degree among the exports of a number of West Indian territories.

Before the war the area under bananas in Jamaica was estimated at 75,000–80,000 acres ; accurate statistics of acreage are not available as plantations are owned by some 30,000 growers, mostly in scattered patches and often in mixed cultivation. From 1934–38 exports averaged 303,000 tons. Since 1912 the industry has had a constant struggle with Panama disease, and just prior to the Second World War leaf spot disease began to appear and caused great devastation. During the war shipping was not available and exports were virtually suspended. As a result of this and the ravages of disease large areas were turned over to other crops. Renewed cultivation began in 1946, but a substantial increase has occurred only since 1947. The 1950 acreage was estimated at 65,000. The bulk of the pre-war exports, as mentioned above, were sent to the United Kingdom, though Canada purchased between 1½ to 3 million stems each year. During the war years Canada offered the main outlet for the greatly reduced supplies. Early in 1947 the Ministry of Food contracted to buy for two years the whole exportable surplus if offered, and Jamaica undertook to sell at least 85 per cent to the Ministry, and in the autumn of 1948 this contract was renewed for a further period of four years. In fact, since the date of the original contract, the United Kingdom has taken practically the whole of the exportable surplus. The price has been negotiated annually, and for the years 1947–50 was £32 per ton f.o.b. as compared to an average pre-war price of £10 per ton f.o.b. The price to the grower increased steadily from 2s. 5d. per count bunch in 1938 to 7s. 10d. per count bunch in 1950 and in addition the grower was able to avail himself of certain other free services. Large scale planting of the Lacatan variety, which is resistant to Panama disease, only began after the Ministry of Food's offer in 1948. As a consequence they made their first major contribution to supply in 1950, from which time the output of Gros Michel has been reduced. In 1938 bananas comprised 59·4 per cent by value of Jamaica's total exports ; by 1942 the percentage had dropped to 7·5 ; it began to climb again in 1946 when it was 19·1 and by 1948 it was 20·8, but fell slightly in 1949 to 19·19. The hurricane of 1951 destroyed 90 per cent of the banana crop, but it is hoped that production will be restored in 12 months.

In the British Cameroons (apart from one big estate in private hands) bananas are grown for export chiefly on the former German-owned plantations. During the war these areas were under the surveillance of the Custodian of

Enemy Property. After the war they were purchased by the Nigerian Government and leased to the Cameroons Development Corporation, which commenced operations on 1st January, 1947. When the Corporation was put in possession of the estates there was a total of 13,337 acres of old planted bananas and some 2,000 acres which had been planted or replanted the previous year. Apart from age, the old planted areas had suffered from war-time neglect and extensive replanting was necessary. The planting programme for 1947 and early 1948 covered 3,807 acres. The 1947 production totalled 2,822,139 stems ; this was increased in 1948 to 4,585,669 stems. In 1949, 5,676,039 stems were produced, but owing to a series of intense tornadoes in the spring of 1950 production fell in that year to 4,803,782 stems. It is proposed that further plantings should be made to give an output of 8 million stems from 1952 onwards. Unfortunately, owing to a shortage of shipping, it was only possible to export 1,281,330 stems of fresh fruit in 1947 ; the situation improved in 1948 when exports totalled 4,078,408 stems. Exports in 1949 and 1950 were 5,137,600 stems and 4,680,419 stems respectively. A portion of the crop not shipped fresh was converted into dried bananas of which the exports were 1,631,000 lb. in 1947 and 677,000 lb. in 1948, 404,000 lb. in 1949 and 171,000 lb. in 1950. Post-war exports have all been to the United Kingdom where the Ministry of Food has been the sole purchaser. The price paid has varied—£32 per ton f.o.b. in 1947, £27 in 1948, £30 in 1949 and £32 in 1950 ; these are to be compared with £5 16s. 8d. per ton f.o.b. as the price of the best Cameroons bananas before the war. Bananas, though very important in the economy of the British Cameroons, have never bulked very large in the trade of Nigeria as a whole.

In 1949 the Ministry of Food signed a contract to buy all available shipments of bananas from Sierra Leone subject to certain provisions of which the most important was that individual shipments should be not less than 500 stems. Shipments so far have been small and rather of a trial nature.

New Zealand is at present the sole market for the exportable surplus of Fiji and Tonga. Small pre-war shipments and occasional post-war trial shipments have been sent from Fiji to Canada, but the difficulty is to provide the requisite shipping. It is hoped to increase exports to Canada as suitable shipping space and supplies permit.

In Dominica the earlier banana industry was wiped out by Panama disease, but in 1948 a 15-year contract was signed by a private company with the Dominica Banana Association for the whole of the island's output. The fruit has up to the present been marketed in Eire and on the Continent, shipping being privately chartered by the purchasers. Under the stimulus of this contract a considerable increase in production is being planned. By mid-1949 the annual rate of production had reached 6,000 tons (420,000 stems), and it was estimated that by 1951 it would total some 21,500 tons (approximately 1,500,000 stems).

British Honduras, St. Lucia and St. Vincent have in the past exported primarily to the United States of America or Canada. In each case production and exports have declined from the pre-war figure. The export value of bananas from St. Lucia (the colony's fourth most important export in 1938) was only about £400 in 1948.

Bananas are grown for local consumption in the Federation of Malaya, where 46,000 acres were under this crop in 1940. The banana area had risen to 68,000 acres in 1946, but fell after that date, and was 58,000 acres in 1949.

CITRUS FRUITS

Cultivation

Citrus fruits chiefly grown in the Colonial Empire are the sweet orange (*Citrus sinensis*), commercial varieties of which include Valencia, Pineapple, Parson Brown and Jaffa ; the grapefruit (*C. paradisi*), the Marsh Seedless predominating ; and the lime (*C. aurantifolia*). Lemons, the sour or "Seville" orange and rough lemon, both widely used as rootstocks, are also grown, while examples occur of other species and of the many citrus hybrids, e.g., tangelos.

Citrus are generally propagated by budding, but areas of seedling trees exist, for example the limes of the Gold Coast, which, however, are now being replaced by budded plants on rough lemon stocks, in an attempt to control "die-back" disease. Experiments are in progress to determine the most suitable stocks and in Jamaica, for example, the use of rough lemon, hog shaddock or sour orange stocks is recommended according to ecological conditions. Citrus will not tolerate inadequate drainage or excessive dryness. Irrigation is often desirable and in Cyprus essential. In young plantations inter-cropping may be practised and cover crops planted for the protection of the soil. The provision of wind-breaks may be called for. Manuring may be necessary for successful production and a number of manurial experiments have been carried out in Colonial territories, in particular in Trinidad and Jamaica. Pruning is largely confined to correct shaping of the trees which come into bearing in about three or four years, yields increasing in subsequent years. Diseases and pests vary according to the different Colonies and in commercial cultivation measures for their control are normally essential.

World Trade

The principal producers and exporters of citrus fruit are as under :—

ORANGES AND TANGERINES IN 1,000 BOXES

	1935–39		1947		1948		1949	
	Prodn.	*Exports*	*Prodn.*	*Exports*	*Prodn.*	*Exports*	*Prodn.*	*(Provisional) Exports*
U.S.A.	67,034	5,271*	114,510	8,231*	103,890	6,368 *	107,170	4,705*
Brazil	34,466	4,409	34,825	1,713	35,410	2,845	35,000	2,011
Spain	24,167	19,614	23,733	5,468	22,818	8,637	21,014	13,420
Italy	11,701	4,261	12,095	3,470	12,920	4,405	9,847	5,615
Palestine	8,652	9,099	13,000	7,360	6,300†	3,033	5,000†	3,000
Union of South Africa	4,000	3,123	5,607	2,979	6,011	3,553	6,500	3,391
Algeria	3,168	1,642*	3,716	1,967‡	6,829	2,886‡	5,804	5,446‡
French Morocco	927	252	2,698	995	3,653	2,681	4,535	2,757

* Net exports † Israel only ‡ Crop year

Total world exports were 54,039,000 boxes average in 1935–39 and only 41,319,000 boxes in 1949. But there has been a steady rise each year from 27,935,000 boxes in 1946. Compared with pre-war the principal changes have been a sharp fall in exports from Palestine, Brazil and Spain and a marked increase in exports from French North Africa.

While the United States of America is by far the largest producer of citrus fruit, the most important market has always been the United Kingdom, which before the war imported over one-third of all oranges, tangerines and grapefruit entering into world trade, over 18 million boxes out of a total of somewhat under 58 million boxes. Other principal importers were France (7 million boxes), Germany (5½ million boxes), and Canada (3 million boxes). The United Kingdom also imported nearly a quarter of all the lemons entering world trade before the war. Other important importers were Germany and France. In 1949 out of 44 million boxes of oranges, tangerines and grapefruit entering world trade the United Kingdom took over 11 million boxes, or 23 per cent, and out of 6 million boxes of lemons it took 1 million, or 17 per cent. The pattern of trade has changed somewhat and France actually imported over 12 million boxes in 1949 and Canada nearly 6 million boxes. The principal importers of lemons in 1949 were Germany, 1·3 million and France 1·1 million boxes.

GRAPEFRUIT (in 1,000 boxes)

	1935–39		1947		1948		1949 (*Provisional*)	
	Prodn.	*Exports*	*Prodn.*	*Exports*	*Prodn.*	*Exports*	*Prodn.*	*Exports*
U.S.A.	31,787	992	61,630	2,430	45,520	2,146	36,140	1,572
Palestine	1,445	1,409	1,500†	1,267	1,068†	861	750	820
Union of South Africa	495	362	693	349	742	400	900	457

LEMONS AND LIMES (in 1,000 boxes)

	1935–39		1947		1948		1949 (*Provisional*)	
	Prodn.	*Exports*	*Prodn.*	*Exports*	*Prodn.*	*Exports*	*Prodn.*	*Exports*
Italy	9,637	5,959	8,137	2,591	7,386	4,062	6,768	5,130
U.S.A.	9,615	603*	13,040	489*	10,140	125	10,460	119
Spain	1,445	762	1,339	177	812	485	870	634

* Net Exports. † Israel only.

Citrus fruit in the Southern Hemisphere is picked between the months of May and November and, in the Northern Hemisphere, between November and May. So far as the Colonial exporting territories are concerned, therefore, their principal competitors are Palestine, Spain, French North Africa and Italy. The Union of South Africa, which sends 80,000 tons of citrus to the United Kingdom annually, markets the crop at a different season.

Colonial Production and Exports

The principal producers for export in the Colonial territories are Jamaica and Cyprus for oranges, Trinidad and Jamaica for grapefruit, and Dominica for limes.

Production figures are as under :—

PRODUCTION OF ORANGES AND TANGERINES
(in 1,000 boxes)

	1935–39	1946	1947	1948	1949
Jamaica.. ..	435	565	760	763	750
Cyprus	441	644	442	388	404
British East Africa	100	150	150	150	150

PRODUCTION OF GRAPEFRUIT
(in 1,000 boxes)

Jamaica.. ..	213	300	290	321	586
Trinidad ..	174	328	320	334	464
Cyprus	44	80	159	131	159

PRODUCTION OF LIMES (in 1,000 boxes)

	1935–39	1946	1947	1948	1949
Dominica ..	87	202	210	210	210
Gold Coast ..	126	125	92	100	100
Trinidad ..	24	130	120	110	100

PRODUCTION OF LEMONS (in 1,000 boxes)

Cyprus	66	164	126	130	110

During the 1949–50 season 820,000 boxes of citrus fruit (averaging about 70 lb. in weight, i.e., about 26,000 tons) were either exported fresh or processed locally in Jamaica. Production of oranges in Cyprus in 1949 was 570,000 boxes of about 60 lb. weight (i.e., about 15,000 tons). In Trinidad production in 1950 was approximately 550,000 boxes (averaging about 70 lb. a box).

Future market prospects for Colonial supplies are bound up with the trend of demand in the United Kingdom. This tends to be upward since there is increasing demand for citrus juices and for the specially prepared concentrated orangejuice used in the United Kingdom Welfare Food Services. In 1950 the Ministry of Food concluded a 10-year contract with Jamaica and British Honduras for the supply of 2,750 and 750 tons respectively of canned juice, and plans are being implemented in both these territories for the erection of the necessary plant, etc., to supply the contracted amounts. There is also a possibility that Trinidad may enter into a similar contract with the Ministry of Food. It should be easier to expand production in Jamaica than elsewhere when the effects of the hurricane have been overcome since the plan there is to graft orange cuttings on to existing grapefruit and bitter orange trees, " top-working " the trees. In Trinidad on the other hand, it is not proposed to top-work the grapefruit trees whose seedless fruit has a ready market. Here and in British Honduras it will therefore be necessary to plant some new areas.

The principal producers of limes besides Dominica are the Gold Coast and Trinidad. In 1948 the Gold Coast exported 250 tons of fruit and 500,000 gallons of unconcentrated lime juice. There are about 3,000 acres under the crop. Dominica's speciality is the production of lime oil, which is now around 18,000 lb. a year. Here too the area under the crop is about 3,000 acres. Trinidad exported 32,000 lb. of lime oil and 83,000 gallons of unconcentrated juice in 1948. St. Lucia exported 3,000 lb. of lime oil and 13,000 gallons of raw juice in 1948. Jamaica's annual production is about 2,400 tons of fruit. Exports of lemons from Cyprus were 337,000 cases in 1950.

The principal exporters of canned citrus juices were Jamaica and Trinidad. Trinidad exported nearly 650,000 gallons of canned grapefruit juice (220,000 cases) in 1948. Jamaica's exports were 440,000 cases of 24 by 20 oz. tins in 1949.

For information concerning lime oil see under " Essential Oils."

PINEAPPLES

Cultivation

The pineapple, one of the most popular tropical fruits, is produced from the perennial stemless plant *Ananas comosus*, a native of tropical America, which has been introduced into all warm countries and is grown on a very extensive commercial scale for export and local consumption.

World Trade

World exports mainly take the form of canned pineapples. The Hawaiian industry dominates the export markets. Before the war shipments were of the order of 17,000,000 cases of canned pineapples, the usual number of cans per case being 24. Most of the fruit was sold in the U.S.A. Production in 1946-47 was 18,443,675 cases. (For comparison with Malayan figures given below the number of cans per case in Hawaii is about half the average number in a Malayan case). The industry in Hawaii has developed very rapidly from small beginnings about 50 years ago, largely as a result of mechanisation in field and factory, the utilisation of the whole of the fruit and wide-scale advertising.

Colonial Production and Exports

As a Colonial export crop the pineapple is of chief importance in the Federation of Malaya. There, during the 40 years preceding the last war, the canning of pineapples developed from a small "cottage" industry to become one of the largest fruit-canning industries in the world and it ranked third amongst Malaya's export industries. In 1937 Malaya supplied the United Kingdom with 90 per cent of its imports of canned pineapple and 25 per cent of its imports of all canned fruits. The Malayan pack of 2½ million cases accounted for 27 per cent of the world production of canned pineapple and 80 per cent of the world export trade in this commodity.

But the picture of a well-established, prosperous industry which these figures seem to depict was largely illusory. The industry had been built up on the basis of low price rather than sound quality. Much of the cultivation was carried out by smallholders, and the methods of harvesting and marketing the crop were inefficient; while the methods used for processing were primitive. So, although in the 1930's annual exports were increased by 70 per cent, this was achieved only by a progressive lowering of the price level which, in turn, led to a deterioration of conditions on both the canning and planting sides of the industry. Under these circumstances the Pineapple Industry Ordinance, conferring on the Government very wide powers for the regulation of the industry, was passed in 1934, and in 1938 the Central Board of Pineapple Packers, Malaya, was formed. As a result the industry was in process of evolving a more satisfactory organisation when war broke out.

On the reoccupation of Malaya it was found that only one of the 17 factories was working and that the area of pineapple cultivation had dropped from 60,000 acres to 3,000. A committee was therefore formed to supervise the rehabilitation of the industry and an expert was appointed, under a grant from Colonial Development and Welfare funds, to advise the Committee on methods of cultivation, canning and marketing.

The progress of rehabilitation of the industry is shown in the following table :—

MALAYA: PINEAPPLE AREA AND PRODUCTION

	Area under Pineapples (acres)	*Production of Canned Pineapples (cases)*
1946	13,813	—
1947	11,920	88,000
1948	16,082	140,855
1949	17,239	321,185
1950	n.a.	561,975

It was hoped that production would rise to one million cases in 1951 or 1952. While exports in 1948 represented only 5·7 per cent of the average volume for the last three pre-war years, they represented 42 per cent of the average value. Current costs are high and reflect the cost of rehabilitation and increased costs of production. It is probable that in future Malaya will no longer be able to compete in the world market on the basis of a low price for an inferior product and will also have to improve the quality of its product.

MALAYA: EXPORTS OF CANNED PINEAPPLES

	Quantity ('000 cases)	*Value (£'000)*
1937	2,596	1,030
1938	2,351	847
1939	2,725	1,158
1947	87	284
1948	146	426
1949	298	737
1950	538*	1,424

* Converted at a ratio of 36·65 cases to the ton.

Before the war the United Kingdom took about 75 per cent of Malaya's exports; Canada took 11 per cent and the remaining 14–15 per cent was widely distributed to New Zealand, United States of America, Western Europe, India and other countries. Since the war, while the United Kingdom has remained the most important market, taking about 40 per cent of the exports, Eire has taken over 30 per cent; a small market has also grown up in the Middle East. As production increases it is hoped to reopen trade with Canada, New Zealand and the United States of America on a scale comparable to pre-war.

Very few fresh pineapples are exported from colonial sources, but Fiji has a small export of the fresh fruit, principally to New Zealand. Fiji also exports small quantities of pineapple juice, but, as in other territories, the bulk of the fruit is canned. Fiji's exports of pineapple products during recent years have been as follows :—

FIJI: EXPORTS OF PINEAPPLE PRODUCTS

	Fresh Pineapples		*Pineapple Juice*		*Tinned Pineapples*	
	Quantity (cases)	*Value (£F)*	*Quantity (lb.)*	*Value (£F)*	*Quantity (lb.)*	*Value (£F)*
1938 ..	867	326	—	—	134,957	1,644
1945 ..	6,337	2,376	43,724	1,102	307,950	7,850
1946 ..	7,010	5,231	22,908	645	277,543	7,406
1947 ..	7,176	4,303	117,635	3,534	551,488	15,896
1948 ..	5,641	3,683	103,762	3,641	930,186	30,909
1949 ..	3,276	2,161	415,328	13,046	1,542,911	62,200
1950 ..	890	592	554,626	13,811	1,289,127	54,140

The bulk of these exports are to New Zealand. Efforts are being made to expand the industry, but the costs of production and freights are high.

In the Gold Coast a small plant for canning pineapples is operated by the Government. In Tanganyika a small private company produces some tens of thousands of cans per annum for the local market, but there has so far been no export. A company was formed and plant erected for the canning of pineapples in the Bahamas in 1944, and exports have grown till, in 1948, they reached 3,774 cases, valued at £6,878. In Mauritius a costly pineapple canning factory which was opened before the war has since had to be closed. A cannery for pineapples has recently been established at Thika in Kenya.

GRAPES AND VINE PRODUCTS

Few of the Colonial territories are climatically suitable for the growing of vines. Grapes are, however, widely grown in both Malta and Cyprus. There is little or no export of fresh fruit. In Malta there is an old-established wine industry, and in 1948 production was estimated at 250,000 Imperial gallons, nearly all of which was consumed locally.

In Cyprus the manufacture and export of raisins and the production of wine, brandy and other spirits are an important feature of the economy of the island. Before the war the quantities of raisins produced varied from 2,000 to 6,000 tons annually, and production continues on much the same scale. Exports of raisins and sultanas during recent years were :—

CYPRUS: EXPORTS OF RAISINS AND SULTANAS

	1938*	1945	1946	1947	1948	1949	1950
Cwt. ..	44,990	59,544	36,265	3,422	10,810	63,587	106,588
£	29,029	152,051	137,374	8,530	25,537	109,254	194,558

* Raisins only.

Wines have been made in Cyprus for centuries, but until recently production was almost solely for local consumption and failed to comply with the standards required of an export trade. Between the wars, however, steps were taken to put the industry on a better footing. A viticultural station was established in 1929, and in 1939 a new building containing an experimental winery and laboratory was completed. Considerable advances were made by private or co-operative enterprises during the war and post-war years. Three extensive vineyards conducted on modern lines were established by private companies ; whereas in 1938 there were only three modern wineries in the country, in 1948 there were 15 such wineries. Prior to 1938 there were only two vacuum plants for concentrating grape juice, but in 1948 there were nine ; during the same period the number of distilleries for the production of brandy increased from 16 to 30.

Exports of wines and grape products have been as under :—

CYPRUS : EXPORTS OF WINES AND GRAPE PRODUCTS

(Imperial gallons)

	1935–39 average	1948	1949	1950
Commandaria	20,886	42,700	13,186	28,992
Other wines ..	1,437,798	1,120,842	1,138,389	2,497,853
Spirits ..	12,499	106,475	76,135	91,262
Vinegar ..	178,199	4,051	5,957	14,224

In 1949 export prices fell sharply owing to a very large vine crop and the re-emergence of competitors in the markets. To avoid a catastrophic fall in prices, the Government on the recommendation of a Vine Industry Rationalisation Committee undertook to purchase all stocks of zivania (grape alcohol) and good quality raisins. Output has fallen since then, and accumulated stocks have been cleared.

FIGS

Cyprus has a small export of dried figs. Exports over the five years 1944-48 have averaged 2,016 cwts., valued at £11,605. In 1950, 4,878 cwt. were exported.

DATES

The Aden Protectorate is the chief producer of dates in the Colonial Empire. It is estimated that there are 10,000 acres of date palms which yielded 4,500 tons of fruit in 1948.

OLIVES

It is estimated that there are about 1¾ million olive trees in Cyprus. Yield of olives varies greatly from year to year, the normal cycle being a poor year followed by a good one. Thus in 1948 only about 1,150 tons of oil were produced as against 3,900 tons in 1949. Exports were 3 cwt. of oil in 1948 and 995 cwt. in 1950.

PAWPAWS

The principal markets for the fresh fruits are the United States, Australia and the Union of South Africa. Experimental shipments have been made from the Union of South Africa to London, and the fruit is also exported from Hawaii and Cuba. Pawpaws are grown in a number of colonies, but no exports have so far been made.

Papain, the dried latex obtained by tapping the green, unripe pawpaw fruit is, however, an export of some importance from East Africa. There is a considerable demand for it in the United States of America. For details of exports, see Table 12.*

MISCELLANEOUS

The *Avocado Pear* has been introduced into most of the Colonial territories, but it is nowhere cultivated extensively. In pre-war years increasing shipments of avocados were made from Dominica, St. Lucia and Jamaica to Bermuda. But difficulties of transport and storage at present militate against its export on a large scale, and so far as the United Kingdom is concerned the avocado remains a luxury fruit in small demand.

Much the same is true of the *mango*. Mango fruits have been exported in small quantities from the West Indies to the United Kingdom intermittently over the last 50 years. The main sources of supply have been Jamaica, Dominica, St Lucia and Montserrat. While the fruit from Dominica and St. Lucia was principally sent to Bermuda, the remainder, save for occasional shipments from Jamaica to Canada, came to the United Kingdom. Owing to difficulties in handling, packing and transport and to the perishable nature of the fruit, it is probable that it will continue to be a luxury fruit in importing countries.

Small quantities of *Pomegranates* are grown in Cyprus, where in 1948 there were some 137,000 trees ; exports in 1950 totalled 27,455 cwt. valued at £33,824.

NUTS USED AS FRUIT

Nuts, with the exception of those which in the present volume are classified under " Oil-seeds and nuts," are not of any substantial importance in the Colonial Empire.

There are some 140,000 almond trees and 50,000 hazelnut trees in Cyprus, but total exports in 1950 were only 1,904 and 134 cwt. respectively. Cashew nuts are grown in Tanganyika, Zanzibar, Jamaica and a number of other dependencies.

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* Page 118.

GUMS AND RESINS

Gums and resins are the dried exudations of certain trees and plants. In some cases the natural exudations only are collected, but in most cases incisions are made in the bark to promote the flow of the juice. A wide variety of trees and plants yield such exudations and their properties and uses vary greatly.

The term " gum " is used both in the narrower sense to designate the true gums and also in a wider sense to designate certain resins and other substances which are not really gums at all. A simple distinction can be made by their behaviour when treated with water. Gums are either water soluble or absorb water to form mucilages, whereas resins are insoluble.

TRUE GUMS

True gums can be subdivided into three classes :—

(*a*) Soluble gums : these are completely soluble in water to form viscous adhesive solutions ;

(*b*) insoluble gums : these absorb water to form translucent mucilages ;

(*c*) semi-soluble gums : these are partially soluble in water and if excess is present they form thin jelly-like solutions. As a class they are of considerably less importance than the other two classes.

(*a*) *Soluble gums* are derived from various species of *Acacia*. *Gum arabic* is by far the best known and most important member of the group, and is derived almost entirely from *Acacia senegal* (syn. *A. verek*), although an inferior grade often known as gum " tahl " is derived from *A. seyal*. The soluble gums find many uses in industry, the best grades being used in the confectionery trade (which absorbs approximately 60 per cent of the gum arabic imported into the United Kingdom), for pharmaceutical purposes (as an emulsifying agent for oils and in the manufacture of tablets and pastilles), in the sizing and finishing of textiles and paper and in artists' colours. Lower grade gums are used in calico printing and various dyeing processes, as well as in the manufacture of inks, stationery, matches, and adhesives. *A. senegal* is found in Africa in the drier parts of the Anglo-Egyptian Sudan, throughout the area from Senegal to the Red Sea, and as far south as Northern Nigeria, Uganda, Kenya and Tanganyika. There is also some production of gum arabic in South Africa, the Indian sub-continent, Burma and Ceylon. The principal source of the best quality gum arabic, known locally as " hashab " gum, is the Anglo-Egyptian Sudan ; three-quarters of the world production of 40,000 tons or more is obtained from this source. French West Africa is of next importance with an annual production averaging 6,000 tons.

Production in Nigeria and Tanganyika is smaller and fluctuates considerably from year to year. Of recent years it has averaged about 1,000 tons per annum for each colony, although figures for the years 1947 and 1948 indicate a decrease in production. The main producing area in Nigeria lies in the northern provinces, particularly the province of Bornu. The best grade gum is obtained from *A. senegal*, but distribution of this species is somewhat sparse and inferior grades sometimes referred to as " Marrua " gum are derived from *A. seyal* and *A. xanthophloea*. In Tanganyika the bulk of the gum marketed is derived from *A. drepanolobium* with a small quantity of high grade gum from *A. senegal*.

There is also a considerable production of *Acacia* gums in British Somaliland, but it is very difficult to assess the exact dimensions of the export trade owing to the practice of shipping the gums to Aden, where they are mixed with gums from other sources and exported as " Aden " gums.

(*b*) *Insoluble Gums* are used chiefly as thickening agents in food manufacture and in pharmacy. The most important member of this group is *gum tragacanth* which is derived from various species of *Astragalus*. The chief gum-yielding species are found in the mountainous districts of Asia Minor, Syria, Iran, Iraq and the U.S.S.R. There is no production at all in the Colonial Empire.

Carob seed gum is now used extensively as a substitute for gum tragacanth. It is extracted from the seeds of the carob tree, *Ceratonia siliqua*, which is indigenous to countries bordering the Mediterranean. Cyprus is one of the leading producers of carob beans* and exports small quantities of the gum. The gum is used extensively in the United States particularly in the textile industry and supplies are imported by manufacturers in the United Kingdom and Mediterranean countries.

(*c*) *Semi-soluble gums* are obtained from a large number of shrubs and trees of different botanical origin. They are considerably inferior to the gums of the other two classes and are of little economic importance.

RESINS

Natural resins as a group are so heterogeneous that there are very few generalisations that can be made as regards their physical properties. Unlike the gums they are usually soluble in organic solvents whilst being insoluble in water.

Resins are used mainly for the preparation of varnishes, but certain grades are also used for other purposes, such as the preparation of lacquers, patent leather, sealing wax, cheap soap and paper size. During recent years natural resins have met with increased competition from synthetic products, for which certain superior qualities are claimed, and the main feature in the post-war supply and demand position of natural resins has been a considerable decline in consumption, which must be attributed rather to a fall in demand than to lack of supplies. Thus exports of copal from Indonesia fell from 8,000 tons in 1939 to 1,850 tons in 1948, while those of damar fell from 6,160 tons to 1,560 tons in the same period. Over the same period, Malayan exports of copal fell from 670 to 610 tons, while those of damar fell from 11,000 to 4,600 tons. Though in part the decline in Far Eastern supplies may have been due to unsettled conditions and the consequent difficulties in collection, it is noticeable that exports of copal from the Belgian Congo have similarly declined—from 15,600 tons in 1939 to 10,400 tons. It is too early to say yet whether the decline in exports is permanent, but the indications are that, while there may be an improvement when more settled conditions prevail, the new synthetic resins are affecting adversely the trade in natural resins.

There is a wide variety of resins and only certain of them are produced in the Colonial territories.

(*a*) *Copals* are a large group of resins some of which are of recent origin, others of fossil origin ; they are characterised by their hardness and relatively high melting points, and are derived mainly from the sub-tropical and tropical forest trees of the family *Leguminosae*. The principal sources of the copals of commerce are East Africa, West Africa, Polynesia, New Zealand and South America. Generally speaking, the copals are named after the country or region of their origin, for example, Congo copal is derived almost exclusively from the Belgian Congo. At one time the copals were entirely employed in the manufacture of varnishes but recent research has developed processes for their utilisation in the manufacture of plastics.

Congo copal is the most widely used of all the natural copals. The output far exceeds that of all the other African copals put together. A small quantity of inferior quality Congo copal occurs in Southern Nigeria. In 1948 exports from the Belgian Congo amounted to 10,400 tons compared with a total of just over 750 tons of various copals from the Colonies.

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* See page 93.

West African copals are obtained from the coastal regions of West Africa from French Guinea to Nigeria. The finer grades are fossil or semi-fossil whilst the poorer grades are derived from living trees. The trees which yield, or have yielded these copals, are *Copaifera copallifera* and members of the *Daniellia* species ; *D. thurifera* is the principal source in the region, except in the Gold Coast area where *D. similis* is the commonest species. These copals are usually known in the trade by their place of origin, e.g., Sierra Leone, Benin, Accra, Angola, Benguela, etc.

Only small quantities of West African copals are now produced and among the British Colonies in this region, the Gold Coast is considered to have the best possibility for future development of trade. Production in recent years in the Gold Coast has averaged from between 7 to 15 tons per annum. There is also a small production averaging between 2 to 3 tons per annum in Nigeria.

East African copals are the hardest and most highly valued of the resins used in varnish manufacture. They are almost entirely derived from the tree *Trachylobium verrucosum*, common in the coastal evergreen forests of Tanganyika, Kenya and Zanzibar. The resin may be obtained from the living tree or in a semi-fossilised or fossilised condition. The fossilised resin is the hardest and best quality, that from living trees being very inferior. Exports of copal from Tanganyika in 1948 amounted to 75 tons of which India and the United Kingdom were by far the biggest importers.

East Indian or *Manila copals* were at one time produced entirely in the Philippine Islands. The copal is obtained from the coniferous tree *Agathis alba*, which occurs throughout Malaysia from Sumatra to the Philippines. It is now collected throughout the region in small quantities and exported to Singapore to be re-exported from there, often under the name of Singapore copal. In Malaya itself the tapped resin often never sets hard and is known as syrup copal or " damar minyak," which is used in the manufacture of high-grade spirit varnishes and lacquers. Exports from Singapore of copal resins are extensive but only a very small proportion have their origin in Malaya.

(*b*) *Damar Resins.*—The various types of damars are derived from trees belonging to the family *Dipterocarpaceae*. Like the copals the damars are true resins, and although they are not as hard or as durable they are used in the manufacture of spirit varnishes. Malaya is the principal source of damars in the Colonial Empire.

Damar penak is the most important of the damars produced in Malaya, and is derived from the tree *Balanocarpus heimii*, known in Malaya as " chengal " or " chengai". Prior to the war the resin was collected and graded under government supervision, the following grades being recognised : " pale," " yellow," " amber," "seed," " fine dust," " coarse " and " fine dust second class." This ceased during the occupation by the Japanese but has recently been resumed.

Numerous other less valuable damars are produced in Malaya. They are usually given names by the Malays descriptive of their colour and can rarely be assigned with any certainty to any particular botanical source. The more important of these damars are " damar hitam " or " black resin," and " damar temak," which is derived from the tree *Shorea hypochra* and is a pale resin very similar in appearance and properties to " damar penak."

The output of damars has shown a marked drop recently, owing to a continued fall in the prices in the export markets. Net exports in 1950 were 142 tons.

Other British Possessions that produce damar are North Borneo and Sarawak. It is difficult to assess production as the greater part of the damar produced is usually exported first to Malaya which controls a large entrepôt trade in this commodity. In 1950 exports of damar from Sarawak amounted to 1,508 tons, and from North Borneo to 1,419 tons.

(*c*) *Dragon's Blood.*—Several resins of different botanical origins which are deep red in colour are known by the name of " dragon's blood." They are used in making coloured spirit varnishes and for lacquers for metals, but have now been largely replaced by synthetic dyestuffs.

The principal sources of this resin are the fruits of several different species of *Daemonorhops*, climbing jungle palms and native to the islands in South-East Asia. The resin is principally produced in Sumatra, Borneo and Malaya.

Another variety known as Socotra dragon's blood is the produce of *Dracaena cinnabari* and is produced in South-East Asia, Socotra and the West Indies. It is of considerably less importance than that derived from the *Daemonorhops* spp.

Exports of dragon's blood resin from Malaya have averaged about 35 tons per annum, and were 17 tons in 1950.

(*d*) *Lac-resin*, from which shellac is manufactured, is the resinous exudation of the parasitic lac insect *Laccifer* (*Tachardia*) *lacca* of the family *Coccidae*. This exudation, or stick lac, is first subjected to a preliminary purification and grinding in which vegetable debris, insect bodies and dye are removed. The resulting seed lac is then converted into shellac by heat treatment or solvent action. Of the total output of lac, India produces about 90 per cent of the world's supplies (chiefly in Chota Nagpur, Orissa, Central Provinces and the United Provinces) ; the rest is produced in Assam, Burma, Siam and Indo-China.

Attempts have been made to introduce the lac insect into various parts of the empire, particularly Malaya and Nigeria but without success. It has been recommended in recent years that fresh experiments should be carried out possibly in East Africa, but it is difficult to find a location having suitable host trees and climatic conditions coupled with sufficient freedom from parasites and predators.

Oleo-resins contain a proportion of volatile aromatic oils and are much softer than either the copals or the damars.

(*a*) *Turpentine Oleo-resin* is by far the most important of all the natural resins, as it yields on distillation two important products, oil of turpentine (" turps ") and rosin (colophony). It is obtained from about 18 different species of *Pinus* in various parts of the world either by tapping the living trees or by extraction from tree stumps, waste wood and sawmill refuse. Turpentine oil and rosin are both used extensively in the manufacture of paints, varnishes, synthetic resins, shoe polishes and various other miscellaneous products. Rosin is also used to a large extent in the manufacture of household soaps, printing inks, linoleum, paper sizing and pharmaceutical products.

The total world consumption of rosin is estimated at about 620,000 tons and, in contrast with the natural resins, shows little change as compared with the pre-war period. The United States is by far the largest producer and consumer, the crop for 1950 being estimated at about 440,000 tons. France follows with a crop of about 56,000 tons, then Portugal (50,000 tons) and Spain (32,000 tons). Mexico and Greece are also producing countries.

In the United Kingdom in recent years consumption of rosin has been deliberately kept at a slightly lower level than normal for currency reasons, and for the same reasons there has been a marked switch in the post-war years from the use of American rosin to that of continental, although the latter is slightly higher in price. In the case of turpentine, currency reasons have resulted in a switch over by the paint trade from the use of turpentine as a solvent to the use of white spirit ; and, as white spirit is the cheaper of the two, the change is likely to become permanent.

At present there is no production in the Colonial Empire, but various species of pine, notably *Pinus caribaea*, occur in the mountain forest regions of British Honduras. The Aleppo Pine (*Pinus halepensis*, Mill) is tapped in Greece and other Mediterranean countries and occurs in Cyprus. Prior to the war tapping experiments were commenced in Cyprus to determine whether an industry could be established on an economic basis, but at present there is no commercial production of resin for turpentine in the colony.

(*b*) *Elemi resins* are soft aromatic oleo-resins. The most important are obtained from the Philippine Islands, but there is a small production in Southern Nigeria and Uganda and from time to time small quantities arrive on the London market.

(*c*) *Gum Mastic* is an oleo-resin obtained from the tree *Pistacia lentiscus*. It is used in the manufacture of chewing-gum, high-grade varnishes, perfumes and various pharmaceutical products. At present world production is centred on the island of Chios where production is in a high state of organisation on a cottage industry basis. Recently the possibility of establishing a similar industry in Cyprus was investigated but owing to the fact that the total world demand is already met from Chios and the difficulty in propagating a mastic-bearing variety of *Pistacia lentiscus* it would appear that there is little in favour of encouraging production of gum mastic in Cyprus.

(*d*) Balsams are in general a class of oleo-resinous plant exudations which contain highly aromatic bodies. The most important of these are balsam of Peru, Canada balsam, balsam of Tolu, guaiacum, illurin balsam, gurjun balsam, gum benzoin, and storax. Of these guaiacum gurjun balsam, illurin balsam, gum benzoin are produced in the Colonies. *Guaiacum* is a medicinal resin obtained from the heartwood of *Guaiacum officinale* and *G. sanctum* in the Caribbean region. The resin is usually marketed in the form of large dark blocks with a strong balsamic odour. *Gurjun balsam* is very similar to copsiba balsam and is obtained from various species of *Dipterocarpus* which occur in south-east Asia. *Illurin Balsam* is derived from *Daniellia oliveri*, *D. thurifera* and *D. similis* in West Africa. It is a fragrant resin and is commonly used as a substitute for copaiba balsam from South America. *Gum benzoin* or " gum benjemin " is the dried resinous balsam obtained from various species of *Styrax*. The trees are found in the Asiatic tropical forests, particularly in Sumatra, which is the principal source of the gum. It is used medicinally as a carminative and diuretic and is one of the principal ingredients of " Friars Balsam." It is also used as a fixative in the preparation of perfumes, cosmetics and certain pharmaceutical preparations. There is a considerable export trade of this gum from Malaya, supplies being imported from the neighbouring producing countries, principally Sumatra, and then exported. On account of this entrepôt trade it is very difficult to assess the exact quantities obtained from Colonial countries.

Oleo-gum-resins are of little importance nowadays compared with their significance in the past. *Frankincense* and *Myrrh* are the two most important of the oleo-gum-resins and are used mainly in the manufacture of incense for religious purposes, although both have been used for medicinal purposes on account of their mild disinfectant properties.

Frankincense or olibanum is obtained from the bark of the genus *Boswellia* mainly *B. carterii* and *B. frereana*. British Somaliland is the only country in the Colonial Empire from which it comes. The former variety is found on the maritime limestone mountains south of Berbera, whilst the latter is found in the Habr Toljaela area.

Myrrh is obtained as an aromatic resinous exudation from the trunks of several species of *Commiphora*. British Somaliland is the chief source of myrrh, supplies being obtained chiefly from *C. molmol*. There is also a small production in Tanganyika. *C. merkii* and *C. schimperi* are the two species that are exploited.

The trade in frankincense and myrrh is based on Aden. In 1949 a total of 12,327 cwt. of frankincense were imported into Aden. The re-exports from Aden were distributed in small quantities over a long list of countries, the chief being the United States, India, the United Kingdom, Egypt and the Sudan.

MISCELLANEOUS GUMS

The gums in this group are not related to the true gums, but appear in this section for convenience.

Gutta Percha is the coagulated latex of *Palaquium gutta* and other trees of the family *Sapotoceae*. It is similar to rubber in chemical properties as it contains a hydrocarbon which can easily be extracted from the raw product. Its physical properties, however, are very different; at ordinary temperatures it is a hard horny inextensible mass, when heated in boiling water it softens to a plastic condition and can be easily moulded, but reverts to its original state when cooled. It is one of the best non-conductors known for both heat and electricity and was used extensively for the insulation of submarine cables. With the coming of wireless the demand for gutta has fallen considerably, but this has had a beneficial effect as there had been a grave danger of destroying most of the trees through over-production, particularly in North Borneo. In this area restocking is now taking place to a limited extent, but the trees are still by no means abundant.

Gutta is also used for the manufacture of golf ball cases, surgical appliances, in dentistry, for acid-resisting containers, adhesive cements and chewing gum.

The trees are found throughout the Malay Archipelago. Supplies are obtained from North Borneo, Sarawak and Malaya. Production is increasing and in 1948 amounted to about 10,304 lb. from these three territories, but production has recently fluctuated considerably.

Balata is the latex obtained from the bullet tree *Mimusops globosa* which is found in the northern regions of South America and Panama. It is very similar in its properties to gutta percha and is used for much the same purposes although a large proportion nowadays is used in the manufacture of machinery belting.

Production is practically confined to British Guiana and neighbouring countries. At present the demand for balata appears fairly steady and exports from British Guiana in 1950 amounted to some 682,747 lb. compared with 485,394 lb. in 1938.

Jelutong, or pontiak as it is sometimes called, is the coagulated latex of trees belonging to the genus *Dyera* which occur throughout the Malay Archipelago. It resembles gutta percha in appearance but is more rubbery and is used largely in the manufacture of chewing gum.

The United States imports the greater part of the total world production, but the demand has decreased owing to increased competition from Brazilian sarva which was developed as a substitute when supplies of jelutong were unobtainable during the war years.

Production in the British Colonial Empire is centred in Malaya, Sarawak, North Borneo and Brunei. In 1948 production in North Borneo practically ceased as the finished product was attacked by a fungus disease known as " Black gum." About 85 per cent of the gum exported from this area was ruined by this fungus and as yet there has been no successful method developed for combating the disease.

Most of the jelutong produced in Sarawak, Brunei and North Borneo is exported to Malaya which has a large entrepôt trade in this product. In 1950 imports amounted to 3,606 tons of which Sarawak contributed 1,256 tons, Brunei 211 tons and North Borneo 63 tons, the rest coming from non-Empire countries. Of the total imports into Malaya, 2,347 tons were re-exported, mainly to the United States.

Chicle is the coagulated latex of the sapodilla tree *Achras zapote L.*, which is indigenous to Central America. It is very similar to balata and is used extensively in the manufacture of chewing gum.

Commercial supplies are almost exclusively derived from Mexico, Guatemala and British Honduras. As there is considerable re-export from British Honduras of chicle produced in other countries it is very difficult to assess the exact production in the colony. Exports for the year 1949 amounted to 309 tons and for 1950, 417 tons.

Details of Colonial exports of gums and resins for the years 1938, 1939 and 1946-49 are to be found in Tables 50-56.*

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* See pp. 167–175.

MARINE PRODUCTS

Six Colonial territories only, namely, Uganda, Nyasaland, Northern Rhodesia and the High Commission Territories of Basutoland, Swaziland and Bechuanaland have no seaboard, and of these the first two have access to great lakes and Northern Rhodesia has Lakes Bangweulu, Mweru and access to Lake Tanganyika. Fishing is therefore a considerable peasant activity in almost all territories. In most cases it is on the subsistence level, with perhaps a small surplus for local consumption ; but in some cases the surplus is large enough to become an article of commerce in the dried or salt-dried state. This trade naturally gravitates towards the centres of high population density and especially of high purchasing power. In East and Central Africa, for example, fish from Lakes Nyasa, Bangweulu, Tanganyika, Albert, Edward and George is sent to the Copperbelt of Northern Rhodesia and the Belgian Congo. In Malaya, Sarawak and Borneo, fish is sent to Singapore, for re-export to Indonesia ; from North Borneo it goes to the Philippines and Hong Kong. Fish taken along the southern coast of Arabia is sent to Aden for re-export to East Africa. In Nigeria, fish is sent from the more sparsely populated north to the more densely populated south.

Statistics of the production of fish are reasonably complete for only a few territories, where the landings of fish are concentrated at a few points. In most cases there are no statistics, because of the difficulty of enumerating catches landed in small quantities at a great number of fishing villages. Where no statistics are available, there are usually estimates, or some data from which estimates can be made, but such figures must be very rough and indicate only the order of magnitude of the landings.

The recorded production of fish in the Colonial territories is of the order of 200,000 tons a year, valued at about £14 millions. Of this, half is produced in Malaya and Hong Kong. This estimate, however, may well represent only a small part of the actual production of fish. For example, the Malayan statistics are considered to represent only half the actual production. Wherever there is water, in ditches, canals, rivers, swamps, lagoons, in ponds and marshes, along the coasts of lakes and the sea, the local folk will fish with hook and line, cast net, basket trap and fish fence with sheets of cloth, and even with their bare hands. While individual catches may be barely sufficient for a meal, the aggregate must represent a very great weight of fish, which cannot appear in statistical tables, but which has a nutritional value that can hardly be exaggerated.

Published statistics of Imports and Exports are incomplete and unsatisfactory, but, for the years about 1947-49, are approximately as below :—

It will be seen that, on balance, the Colonial territories are a substantial net importer of fish. Where there are big exportable surpluses, as in the Far East, they mainly go to foreign countries. Where other territories, such as the East and Central African, have fish for export, it may not mean that there is any genuine surplus over local requirements, but that, owing to the sparse distribution and low purchasing power of the local population, it is more profitable to export than to distribute locally.

These same factors determine the form in which fish is distributed, whether for domestic consumption or for export. In subsistence fishing, the fish is usually eaten fresh ; but where professional or part time fishermen produce a surplus above their own needs, it is seldom distributed fresh. This is not only because of the perishable nature of fish in hot climates, but because there are seldom compact markets within easy reach of the fishermen. It is usually uneconomic to transport and retail small parcels of fresh fish. Ice is a help, and is being increasingly used, for example, in Malaya, Hong Kong, Kenya and British Guiana. In Malaya, transport of fresh fish in ice by rail and road is being developed and is linking centres of production with centres of consumption. The distribution of chilled or frozen fish is beginning in Kenya and Sierra Leone, and Nigeria is shortly to follow. There are plans to establish a cold store in Aden for supplying visiting liners, and there is a future for this in other Colonial ports. A liner represents a very compact market of high purchasing power, and where ships call frequently the demand is substantial.

Fresh fish is not only the best form of fish nutritionally ; it is also by far the most profitable. Consumers seem well content to pay high prices for the 80 per cent of water which fresh fish contains, and which is lost when the fish is salted and, still more, when salted and dried. It seems probable that, as Colonial development continues, more people will be attracted into compact communities with a comparatively high and steady purchasing power. Such a tendency would in itself increase the proportion of fish sold in the fresh state, with the use of ice and cold storage, and so increase the earnings of the fishermen.

Canning is making some headway. Drawbacks are the very seasonal occurrence of most fish suitable for canning, which means that if no other commodities are available for canning the plant must be operated uneconomically. Semi-commercial plant on the Gold Coast, however, is successfully canning fruit juices and pineapples in the off season, thus spreading the period of economical operation of the plant. The high price of cans is also a retarding factor. There is, however, a ready demand for locally canned fish on the Gold Coast. A small canning factory

FISH: APPROXIMATE LEVEL OF EXPORTS AND IMPORTS

Territory	*Exports*		*Imports*	
	Quantity *Tons*	*Value* £'000	*Quantity* *Tons*	*Value* £'000
Hong Kong	9,665	703	—	515
Malaya	10,077	569	10,054	1,216
Borneo Brunei Sarawak	1,828	165	1,537	172
Cyprus Malta	Nil	Nil	—	222
East Africa	3,226	192	3,193	192
Central Africa	87	6	221	37
Aden and Somaliland	2,286	105	521	20
West Africa	9	1	6,374	870
Mauritius and Seychelles	23	3	1,012	124
West Indies	1,071	90	14,500	1,762
Totals	28,272	1,832	37,412	5,130

in British Somaliland is having to look to world markets, owing to the sparseness of the locally accessible population. The canning of mackerel is about to begin in Malaya, and a factory for canning tuna has started commercial operations in Gibraltar.

The vast bulk of the fish produced is consumed in the salted, dried, or smoked state. It is a common error to condemn such fish because it may smell offensive to European nostrils. Fly-blown and beetle-infested fish is to be deplored, but as to flavour the customer is always right, and he will reject an article which is not to his liking as readily in most Colonial territories as in Europe. The powerful flavour of dried fish, or fish which, as in the Far East, has deliberately been allowed to ferment, has a definite function in stimulating digestion. Such fish therefore not only supplies protein, but aids in the ingestion of large quantities of carbohydrate foods which are the fillers in native diets.

Fish preserved by salting and drying will keep for a period varying from several days to several months. It is therefore the best form at present easily available for the storage, export, and distribution of fish.

The fishing methods in use are extremely diverse, varying from the bare hands and the fish spear to the trawls and purse-seines of Hong Kong and Malaya and the great beach seines of Malaya and the Gold Coast. Fixed traps are much used in all territories and vary from the simple reed fence and basket traps of Africa and Borneo to the fish weirs of Malaya, which are considerable engineering works in which hundreds, and even thousands, of pounds are invested.

Apart from such fixed fishing engines and beach seines which do not require large or stable fishing craft, the type of fishing gear used is conditioned by the fishing craft available. In the African territories, the Gulf of Aden, Malaya and the Borneo territories, canoes, either dug-out, built or sewn, are the common fishing craft ; in the West Indies canoes or light planked boats. In Malaya and Arabia, however, there are decked sailing fishing craft, while in Hong Kong the fishing junks are substantial vessels. Consequently, large and heavy fishing gears are only found in the latter territories, where the vessels are big enough and steady enough to allow of their manipulation ; even there, however (except in Malaya) all vessels are sailers, and do not make use of mechanical power.

When canoes are used, fishing gears are necessarily light, and therefore comparatively inefficient ; the crude and primitive fishing craft and gears of Africa are the equivalent of the crude and primitive methods of the peasant agriculturist.

Almost everywhere in the Colonial territories, and especially in the Far East, the fishing craft and gear are the property of private entrepreneurs, often the fish buyers, who let them to the fishermen on some kind of catch-sharing system. This system works in such a way that the fishermen are seldom out of debt, and take a disproportionately small share in the proceeds of fishing. Yet the entrepreneur should not be too hastily condemned ; he runs heavy risks in committing unsecured capital in this way, and the fishermen could hardly carry on without the provision of capital equipment in some such way.

With such primitive equipment, the production of fish per man-year must tend to be low. In the table below, some estimates are given of the average weight of fish produced per man per year.

Fish : Average production per man-year

West Indies ..	.. about	½ ton
Nigeria	,,	½ ton
Malaya	..	¾ ton
Mauritius	..	1¼ tons
Seychelles..	..	1½ tons
Kenya (Marine)	..	2 tons
East Aden Protectorate	..	5 tons
United States	..	15 tons
England and Wales ..	..	24 tons

It will be safe to assume a figure of about ½ ton per man per annum in most territories. The high figure for Aden is the consequence of the big sardine fisheries which normally occur on that coast, and which are easily caught in shallow water. The output of fish per man-year is an indication of the natural productiveness of the water as well as of the effectiveness of fishing methods.

Where fishing effectiveness is so low, it is clear that an improvement in the production of fish cannot be looked for by an increase in the number of fishermen using existing methods, but by improving fishing methods, so that the same number of fishermen can produce a much greater quantity of fish per year. This again, points to the necessity of introducing power-driven craft with the wider radius of action and more efficient fishing gears which the use of power makes possible. In the table above, the yield of fish per man-year, in the very highly mechanised fisheries of America and the United Kingdom is in sharp contrast with the yields of Colonial fisheries, though the greater natural productiveness of temperate seas plays some part in this superiority.

A few of the Hong Kong fishing junks have engines ; these craft have about twice the catching capacity of the sailing junks. In Malaya, the State (Perak) where there are the largest number of power-driven fishing craft has an average production of fish of 2½ tons per man per year, whereas in the State (Trengganu) which has the least mechanisation of the fishing fleet, the production is but half a ton. In the Gold Coast a first comparison has shown that small power-driven surf boats give their fishermen 12 times the rate of capture of fishermen using similar gear in surf-canoes.

Fishery development schemes, staffed by trained Fishery Officers, are now in operation in almost all territories. Clearly in addition to administrative work, a most important part of the work of these Fishery Officers is extensive trial fishing by small powered craft of a type suitable for each territory. This work is still at an early stage, for no territory has yet had more than three years' experience of this experimental power fishing. Powered fishing craft are at work in Barbados, Gambia, Sierra Leone, Gold Coast, Nigeria, on Lake Victoria, in Kenya, Aden, Malaya, Sarawak and North Borneo, and are shortly coming into commission in British Honduras, British Somaliland and Zanzibar.

Since the running costs of powered craft increase very steeply with increase of size, it is doubtful if large powered fishing craft would pay in most tropical countries, having regard to the relatively low rate of natural production of fish in tropical marine waters. The policy is therefore to ascertain the earning capacity of small power-craft, with low capital costs and running expenses, compared with that of sail and hand-propelled craft in each territory. Where powered craft can demonstrably pay their way, including depreciation and running costs, it is to be expected that local fishermen will wish to adopt such craft. The provision of capital to enable them to do so is another problem which Fishery Officers must deal with. Already, in Sarawak, the demonstration fishing craft has proved her earning capacity to the point where a number of local entrepreneurs are equipping power craft to exploit similar methods. But, generally speaking, it will take at least one generation of fishermen before power-fishing methods will become firmly established ; fishery development, like agricultural development, must be regarded as a long-term policy.

An analogous development is taking place in the freshwater fisheries. But special mention must be made of fish culture. Kenya has long had trout fisheries of great recreative value, and trout culture is also being fostered in Uganda, Nyasaland and Tanganyika. Fish farming, as a technique for the mass-production of fish for human consumption, has long been established in Malaya and Hong Kong. The total world production of fish farms is estimated to be about 500,000 tons, so this is an extremely important technique. Fish farming is now being introduced into territories where this technique has never been known. It should prove very adaptable to peasant agricultural communities, and there is also scope for the large-scale capitalised fish farm. Fish farming is being demonstrated in the Windwards and Leeward Islands, Jamaica, British Guiana, Gambia, Nigeria, Northern Rhodesia, Tanganyika, Kenya, Uganda and Zanzibar. Production seems likely to be of the order of one ton of fish per acre per annum.

Besides the main yield of the fisheries there are various minor products, which are briefly listed below.

Fish air-bladders for the manufacture of isinglass and soups, are produced in Aden, Malaya, Hong Kong, Borneo, Sarawak, Nigeria, Sierra Leone and British Guiana.

Various *shells*, used for button manufacture, are produced in Aden, Somaliland, Malaya, Fiji and the Pacific Islands, but the trade is small. *Mother-of-pearl* shell is produced in Aden, Somaliland and the Pacific Islands.

Crocodile skins are produced in Kenya, Uganda and Tanganyika, and *turtles* in the Seychelles, Ascension, Cayman Islands and British Honduras. *Turtle eggs* are produced in Sarawak and North Borneo.

Sponges are produced in small quantities in Cyprus; the former rich sponge fisheries of the Caribbean and the Bahamas are much reduced at present.

Whale and seal products are mainly produced in the Falkland Islands and Dependencies, but the almost universal practice of pelagic whaling from floating factories has greatly reduced the proportion of whale products from shore stations. There is a very small whale fishery in St. Vincent and the Grenadines.

MINERALS

The total value of Colonial mineral output in 1950 was of the order of £180,000,000. This represents about 12 per cent of the value of the mineral output of the Commonwealth as a whole, the United Kingdom and Canada together accounting for a further 60 per cent. Colonial minerals are very unequally distributed. Malaya (tin) and Northern Rhodesia (copper) together make up about half the value of Colonial mineral production. Next in order of importance come Brunei (oil), the Gold Coast (gold, diamonds, manganese and bauxite) and Trinidad (oil and asphalt), accounting for 13, 9 and 8 per cent of the total respectively ; these are followed by Nigeria (tin, columbite and coal) and Cyprus (copper and pyrites). In no other Colony is mineral production more than £5 million per year in value.

As yet very little of the output of minerals is consumed domestically. Tin and copper are smelted in Malaya and Northern Rhodesia respectively and exported as metals, and petroleum is refined before export in Trinidad and Sarawak, but otherwise the minerals produced are for the most part exported as ore. Malaya is the world's greatest producer of tin and Malayan tin is a most important dollar-earner. Other dollar-earners, apart from gold, are Gold Coast manganese, Nigerian columbite, Kenya kyanite, and the diamonds of Sierra Leone, Tanganyika, and the Gold Coast.

Although there are collieries in Nigeria and Malaya, Colonial territories as a whole are regrettably deficient in workable deposits of coal, particularly coking coal, and this together with the general lack of good iron ore militates against rapid industrial development. Plans are in hand, however, to make use of water-power resources in several places and thus provide power for the smelting and fabrication of metals.

Since the last Economic Survey appeared, developments in Colonial mineral production have for the most part been extensions of existing mining industries. Perhaps the most striking have been the great expansion of the oil output of Brunei, which is now the leading Commonwealth oil producer, and the development of diamond production in Tanganyika, which has so greatly benefited the revenue of that country. New developments include the production of bauxite in the Gold Coast and of kyanite in Kenya, and the finding of extensive deposits of bauxite in Jamaica and of a lead-copper deposit in Tanganyika. Investigation of the coal deposits of Tanganyika and the lead-zinc deposits of Nigeria is proceeding.

The mineral potentialities of large areas of the Colonial territories, however, remain virtually unknown, and it is largely to remedy this position that steps have recently been taken to increase greatly the number of geological survey officers. A sum of £1¾ million has been allocated from Colonial Development and Welfare funds for the expansion of Colonial Geological Surveys. The number of geologists in the Colonial Service at the end of the Second World War was 45. Training was suspended at the Universities during the war and recruitment of geologists was accordingly slow, but the position is now much more satisfactory. The following figures show the total technical staff of Colonial Geological Surveys overseas at the end of the years mentioned :—

1947	1948	1949	1950	1951
58	72	110	157	177

There were also 16 American and Canadian technical officers appointed for two years under the E.C.A. scheme.

In the following survey of the mineral position, minerals and metals are dealt with in four groups :—

I. Metals and metallic ores.
II. Precious stones.
III. Coal, petroleum and asphalt.
IV. Other non-metallic minerals.

METALS AND METALLIC ORES

Tin

Tin is one of the most valuable dollar-earning raw materials produced in the whole sterling area. It is traditionally the most important mineral product of the Colonial territories, and the Federation of Malaya is the principal individual producer of tin ore in the world. Nigeria, too, is an important source of tin ore, her output placing her fifth in the list of world producers. Small quantities are also obtained from Uganda, Tanganyika and Swaziland and a few tons from Northern Rhodesia.

World Production and Consumption

World production, consumption and stocks of tin during recent years were as follows :—

TIN: WORLD PRODUCTION, CONSUMPTION AND STOCKS
1938–39 and 1946–50
(Thousand tons)

	1938	1939	1946	1947	1948	1949	1950
Production	162	174	99	125	158	168	172
Consumption* ..	149	155	111	131	134	115	147
Stocks at end of year†	71	75	154	135	134	131	114

* Post-war consumption figures exclude U.S.S.R.
† Excluding U.S. permanent stockpile.

Six major tin ore producing countries account for 90 per cent or more of the world's output as shown in the following table :—

PRODUCTION OF TIN IN ORE‡
(Thousand tons)

	1939	1945	1946	1947	1948	1949	1950
Malaya	47·4	3·2	8·4	27·0	44·8	54·9	57·5
Indonesia	26·8	1·0	6·4	15·9	30·6	29·0	32·1
Bolivia*	27·5	42·5	37·6	33·3	37·3	34·1	31·2
Belgian Congo ..	8·1	17·0	14·2	12·4	12·9	13·8	14·6
Nigeria	9·4	11·2	10·0	9·1	9·2	8·8	8·3
Siam	15·6	1·8	1·1	1·4	4·2	7·8	10·4
Other British Colonies and Dependent Territories† ..	.. 0·7	0·4	0·4	0·3	0·3	0·3	0·3
World Total	168	88	89	112	152	162	167

* Exports. † Including Swaziland, Tanganyika and Uganda. ‡ i.e., the estimated tin content of ore mined.

The average annual production of tin in the years immediately preceding the war (1935-39) was 171,000 tons, but the effect of the war was to increase production in 1940 to 235,000 and in 1941 to 246,000 tons, by far the highest figure ever recorded. This was due not only to increased consumer requirements, but also to the buying of tin for the U.S.A. emergency stock. The occupation of Far Eastern countries by the Japanese resulted in precipitous falls in production in Malaya, Indonesia and Siam ; after the Japanese withdrawal in 1945 tin production was recommenced on a small scale and in that year 3,200 tons were produced in Malaya. Subsequent recovery has been remarkably rapid considering the destruction of plant, machinery and workings that had been wrought by the combined effect of the scorched-earth policy of the defenders and the destruction carried out by the invaders before capitulation. The tin producers of South-East and East Asia, which before the war had contributed some 65 to 70 per cent of the world's tin, had already by 1948 reached 57 per cent again, and had reached 63 per cent in 1950.

The United States is the largest consumer of tin, accounting for 50 per cent of world consumption in 1950 (excluding amounts placed in stockpiles). Next came the United Kingdom with 15·1 per cent, France with 5·5 per cent, Western Germany with 3·6 per cent, India with 3·12 and Canada with 3 per cent. The most important use of tin is in tinplate, which accounted for nearly 42 per cent of tin consumed in the U.S.A. in 1949, and for over 45 per cent of tin consumed in the United Kingdom. Other important uses include the manufacture of bronze (in which, however, a fair amount of reclaimed tin is frequently used) and of solder, babbitt, various other alloys, and collapsible tubes. Since the cost of tin usually forms only a small part of the cost of the final article in which it is used, the short-term demand for it is not greatly affected by changes in its price, but is closely linked to the general level of industrial activity.

As a result of this inelasticity in the demand for tin, it has often been subject to violent and rapid fluctuations in price, and this has brought in its train serious social, political and mining problems in producing countries. For this reason, since 1931, various schemes have been put into force at different times with the object of stabilising prices. These were dealt with in the previous Economic Survey and need not be recapitulated. The fourth and last International Tin Agreement operated from January, 1942 to December, 1946, but the low output in South-East Asia rendered any restriction of production unnecessary. As shown above, production has again attained the pre-war level, but for various reasons the world consumption of tin has not similarly expanded ; indeed, there was a decline in 1949 from the 1948 consumption figure of 134,000 tons, which itself was substantially below the pre-war level. The excess of world production over world consumption in 1949 was 53,000 tons. Consumption rose sharply, however, during 1950.

In view of the excess of production over consumption, the International Tin Study Group, which includes representatives of the Governments of all the main tin-producing and consuming countries, set up a Working Party to draw up a statement of the position in the industry, and to draft an International Tin Agreement in accordance with the principles of the Havana Charter for an International Trade Organisation. The draft Agreement, which provided for the control of exports and the setting up of a buffer stock, was considered at an International Conference called by the United Nations Organisation in October, 1950. It proved impossible to reconcile the divergent views on the fundamental questions of the functions of the buffer stock and the regulation of production, and the Conference adjourned.

Fluctuations in the price of tin during recent years are shown in the following table :—

TIN PRICES (YEARLY AVERAGES)

	London—Cash (*£ per long ton*)	New York—Prompt (*U.S. cents per pound*)
1937	242·3	54·24
1938	189·6	42·26
1939	226·3	50·18
1947	427·6	77·99
1948	551·5	99·25
1949	605·8	99·15
1950	745·8	95·62

Prices rose steeply during the latter part of 1950, largely as a result of demand by the U.S. stockpile, and reached over £1,600 per ton in February 1951, falling to about £950 per ton in the middle of 1951, when U.S. purchases were reduced, and £930 at the end of the year.

Colonial Production

The Federation of Malaya and Singapore together produce more smelted tin than any other country, their output of 62,700 tons in 1949 being 37 per cent of the world total and more than twice as great as the output of the United States, the next largest smelter.

Federation of Malaya.—Tin has been mined by the Chinese in Malaya for many centuries and coins made of tin were in local use prior to the Portuguese occupation of Malacca in 1511. About 1848, before the British occupation, rich alluvial deposits were found in the Larut area of Perak and by 1872 there were some 40,000 Chinese working tin ore in this district. It was indeed owing to violent fighting among various factions of these Chinese that the British Government intervened.

The backbone of the Malayan peninsula consists of a range of granite hills which extends from Burma in the north to the borders of Malacca and Negri Sembilan in the south and reappears in the Indonesian islands of Banka and Billiton. This granite intrusion itself contains tinstone and was responsible for the tin mineralisation of the limestones and shales into which it was intruded. Subsequent denudation gave rise to the alluvial deposits that contain tin in almost every part of the peninsula. Although the greater part of the tinstone is won from alluvial deposits, the ore also occurs in veins and stockworks in the granite and the adjacent sediments, and as pipes in limestone near the granite contact. The granite and other tin-bearing rocks have often been decomposed to a remarkable depth by ground-water, thus enabling the tinstone to be readily recovered from them by washing away the containing rock. Lode-mining in hard rock is carried on, as well as practically every known method of alluvial mining—bucket-dredging, gravel pumping, hydraulicing, opencast mining by hand or mechanical shovels, and even hand-panning carried out by women who use a wooden pan known as a dulang. In 1949 some 50·4 per cent of the output was got by dredging, 35 per cent by gravel pumping, 4·8 per cent by dulang washing, 4 per cent each by hydraulicing and underground mining, 1·2 per cent by opencast working and the rest by miscellaneous methods. Gravel-pumping is commonly employed by the Chinese operators and is particularly suitable for use by small producers. More than 500 gravel pump mines were in operation in 1949. About 60 per cent of the total output comes from European-owned mines and 36 per cent from mines owned by Chinese. Over 47,000 persons were employed in the Malayan tin industry at the end of 1950.

Every one of the nine States except Kelantan contributes to the output and Malacca, too, produces some 150 tons, but Perak with 34,224 tons of tin in ore and Selangor with 15,068 tons in 1949 are by far the largest producers.

The principal producing areas are :—

Perak—Kroh, Taiping, Sungei Siput, Kinta Valley (including Ipoh, Batu Gajah and Kampar), Tronoh, Temoh, Chenderiang and Bidor.

Selangor—Rawan and district, Kuala Lumpur and district.

Negri Sembilan—Titi, Rantau, Mantin and Seremban district.
Pahang—Sungei Lembing, Gambang, Bentong and Manchis.
Trengganu—Kemaman.
Johore—Kota Tinggi district.

The Kinta Valley in Perak has been the largest and richest alluvial tin area in the country, if not in the world, and it has produced some 45 per cent of the country's tin ore. Tin-bearing lodes have been worked in Pahang since 1906 and the largest underground tin mine in the world is at Sungei Lembing in that State.

The tin ore concentrate produced in Malaya is of high grade, averaging 75 per cent metallic tin. Almost the whole output goes to tin smelting companies in Penang and Singapore who also import concentrates for smelting from Siam, Burma and other neighbouring countries.

The rehabilitation of the tin industry has continued to make steady progress in spite of the operations of the bandits. Output has not been much affected, and little material damage has been done. A serious effect of the lawlessness, however, has been the prevention of prospecting and development in new areas. Much of the highest grade of ground in the developed areas has now been exhausted and the average grade of ground worked is lower than formerly. The pre-war restriction of output also put a check on prospecting and as the known reserves of ore are limited and dwindling, the resumption of active prospecting and the development of new areas becomes ever more pressing as time goes on.

Nigeria.—Though it had long been known to the Africans, tin ore was first found in Nigeria by officers of the Niger Company in the gravels of the Delime River near Jos in 1903. In the next few years the Mineral Survey of Northern Nigeria discovered tinstone in many streams over a wide area in that neighbourhood. The payable deposits are practically all alluvial and occur over an area of some 10,000 square miles on and around the fringe of the Bauchi plateau, which is some 4,000 feet above sea level in the Northern Provinces some 500 miles from the coast. Exports of ore and of locally smelted tin commenced in 1907 but operations were not on a large scale until some years later when the railway reached the area. In addition to the modern stream beds and the younger stream terraces from which the ore has hitherto been obtained, there are similar but much older alluvial and eluvial deposits, quite unrelated to the present drainage system, which have been buried beneath the Tertiary Fluvio-Volcanic Series and later basalt flows. These deep leads are difficult to locate and more costly to work than the recent alluvial deposits, but if the tin industry is to continue to flourish for many years it is imperative to find and work these deep leads, for the known reserves of tin ore at present are only estimated to be about 100,000 tons and production is at the rate of about 11,000 tons of ore a year.

By the intensive working of higher grade ground the output of ore rose considerably during the war, with the consequence that the grade of ground now worked is much lower than before the war (1 lb. per cubic yard as against 2·26 lb.), and production is again at about the pre-war level. About 45 per cent of the ground removed is worked by hand labour (including 25 per cent by tributing), and about 40 per cent by draglines, gravel pumps and shovels, operated by electric power and steam and diesel engines, the remainder being won by hydraulic methods and by one dredge. Tin ore is won by some 40 firms and 70 individual operators, and the industry gives employment to some 55,000 persons. Of the 15,383 tons of ore produced during the period 1st January, 1949, to 31st March, 1950, 2,526 tons were produced by individuals and 12,757 tons by companies of which one alone accounted for 6,468 tons. The grade of ore shipped is 72·5 per cent tin oxide.

Uganda, Tanganyika and Swaziland.—Before the war these three countries together produced annually some 800 tons of tin-in-ore, of which Uganda contributed about half, but production in all cases has greatly declined and their combined output has lately been less than 300 tons. The tin-bearing area to the west of Lake Victoria lies partly in Uganda, partly in Tanganyika and partly in Belgian territory. Most of the ore is obtained from detrital deposits derived from pegmatite veins, but in some cases the veins themselves are worked. The workings are on a very small scale.

Copper

Judged by the value of world production, copper is the most important of the non-ferrous metals, and it ranks a close second to tin among the mineral products of the Colonial territories. It has a wide variety of important industrial uses resulting from its high electrical and thermal conductivity (electrically second only to silver), high tensile strength, ductility, durability and resistance to corrosion. It forms a part of many important alloys including brass, bronze, cupro-nickel and various aluminium alloys. It is widely used in the electrical industry for transmission lines, switchgear and generating plant and has many other industrial and domestic uses.

There are two main stages in the manufacture of refined copper from copper-bearing ores. First the ores, which may contain as little as 1 per cent of copper, are smelted, the copper so extracted being known as " blister "copper, which still, however, may contain many impurities. The blister copper will then be electrolytically or fire-refined, the final product being copper of at least 99·9 per cent purity in the case of electrolytic copper, which is normally used for electrical work when low resistance is essential. Copper is exported from Colonial territories in all of these forms—as ore, especially from Cyprus, and as blister or electrolytic copper from Northern Rhodesia.

The United States are the largest copper consumers in the world, accounting for 45 per cent of world copper consumption in 1948 (excluding U.S.S.R.). Next come the United Kingdom (16 per cent), Canada (4·3 per cent), and France (4 per cent).

There are two Colonial producers, Northern Rhodesia and Cyprus, the former being of major importance, and there are potential sources in Uganda and on a smaller scale in Kenya and Tanganyika. The following table shows statistics of copper production in the Colonies, in the forms in which it leaves the territories :—

COLONIAL COPPER PRODUCTION

		1938	1945	1946	1947	1948	1949	1950
Northern Rhodesia								
Blister Copper	tons	181,664	132,690	128,749	136,224	152,247	194,889	198,760
Electrolytic Copper	„	31,367	61,324	53,540	56,276	61,368	64,413	76,804
Total	„	213,031	194,014	182,289	192,500	213,615	259,302	275,564
Value	£'000	8,886	11,247	12,326	20,390	25,856	32,120	43,257
Cyprus (Exports)								
Cement Copper	tons	—	—	—	—	1,550	2,010	1,334
Copper Concentrates ..	„	146,550	—	400	66,710	79,100	111,390	103,030
Copper Pyrites	„	..	—	—	—	—	77,820	111,210
Estimated Total Metallic Copper Content*	„	..	—	70	12,481	15,486	23,558	22,933
Value	£'000	768	—	3	977	1,338	2,115†	2,837†

* Estimated copper content of cement copper (50–57 per cent), copper concentrates (approx. 18–19 per cent), and copper pyrites (2·5 per cent).

† Including copper pyrites (£287,000 in 1949 and £612 300 in 1950) having an average sulphur content of 48 per cent and an average copper content of only about 2 per cent.

The great increase in value of production in recent years is almost entirely due to the rise in the price of copper, which in 1948 was nearly three times that of 1938. Generally speaking, world copper prices follow the American price. The following table shows dollar and sterling prices for copper in recent years :—

COPPER PRICES: YEARLY AVERAGES

	U.S.A. (cents per lb.)	U.K. (£ per long ton)
1937	13·2	60
1938	10·0	46
1939	11·0	45
1947	21·0	131
1948	22·0	134
1949	19·2	134
1950	21·2	180

The United States price was at its post-war maximum in 1948 (year's average, 22·038), but fell considerably during 1949, with some improvement at the end of the year. It was raised to 24½ cents per lb. in the latter part of 1950. Sterling prices have followed the American prices closely, and consequently devaluation caused a 30 per cent increase with the result that 1950 opened with the United Kingdom price of copper at £153 per ton. In September, 1950, it was increased to £202 per ton and to £234 per ton in September, 1951.

Northern Rhodesia's position among the six major copper producers, which together account for 80 per cent of the world's output, is shown in the following table :—

COPPER ORE PRODUCTION (COPPER CONTENT)
(thousand tons)

	1929	1934	1939	1944	1949	1950
United States ..	898	212	650	868	672	812
Chile	315	253	336	490	365	357
Canada	111	163	272	244	235	235
Northern Rhodesia†	5	138	212	221	239	276
Belgian Congo† ..	135	108	121	163	139	173
U.S.S.R. ..	30	52	105*	130*	200*	*220
World Total ..	1,900	1,260	2,040	2,500	2,220	2,455

* Unofficial estimates. † Metal.

Ranking third among producers in 1950, Northern Rhodesia is second only to Chile as an exporter of copper, since the United States is a net importer and Canada exports only about half her production. The British Commonwealth consumes slightly more copper than it produces and the Sterling Area is a large importer of copper, so that the importance of supplies from Northern Rhodesia, which amount to 45 per cent of the Commonwealth production and 80 per cent of that of the Sterling Area, cannot be overrated. From Northern Rhodesia's point of view her financial prosperity depends on the fortunes of her copper mines, for they provide no less than 85 per cent of her total export trade and the major part of the revenue of the country.

Copper was worked by Africans and Arab slave traders in Northern Rhodesia before the advent of Europeans, but the importance of the deposits was not established until 1925 when exploratory drilling revealed the existence of enormous tonnages of sulphide ores admirably suited to large-scale exploitation. Rapid development followed, based on extensive geological work, and the first of the new mines and smelters came into production in 1931. By 1937 three mines and smelters and an electrolytic refinery were producing and the Rhodesian Copperbelt took its place as third among the world's sources of copper, yielding 208,000 tons of the metal. The early years of the industry were overshadowed by the threat of surplus copper in world markets and so although the Rhodesian mines were among the lowest cost producers they were forced to periodic restrictions of output which, however, were slight compared with those suffered by the older producers. The war called for maximum production of copper, and Northern Rhodesia responded well, yielding an average of 240,000 tons annually during the war period, and attaining the record output of 262,394 tons in 1940. Supply difficulties, and particularly a shortage of railway trucks for bringing coal to the smelters from Southern Rhodesia, caused a decline in output at the end of the war, and the pre-war level of production was not regained until 1948. Several major developments for expanding production are now being carried out, and it is estimated that by 1952-53 an annual output of 350,000 tons of copper should be attained, if coal supplies are sufficient.

The four mines in the Copperbelt have so far produced a total of 120 million tons of ore which has yielded 3½ million tons of copper, yet their proved ore reserves, now totalling 450 million tons averaging 3·9 per cent copper, stand as high as when the field was first opened up. There are in addition other known orebodies available for mining when required, so there is clearly sufficient ore to maintain the current rate of production well into the next century. Chile alone possesses proved copper reserves greater than those of Northern Rhodesia. The latter, moreover, are considerably richer than the great majority of those worked in Chile and the United States which range from 2½ per cent to about ½ per cent of copper, although this is offset by the fact that most of the latter are worked opencast whereas the Rhodesian mines are underground, though of quite modest depth and well suited to mechanised methods of mining.

The ores of the Roan Antelope, Nkana and Mufulira mines consist almost entirely of sulphides, ideal for flotation treatment, nearly 90 per cent of the copper being recoverable in the concentrates. At the Nchanga mine, however, which contains both the richest ore and the largest copper reserves in the Copperbelt, the ore is a mixture of sulphides and oxidised minerals, and years of research and pilot plant trials have been needed to solve economically the problems of its concentration. As a result this mine is only now being brought into full-scale production, the first stage of which should be attained by 1951 when its annual capacity is expected to be 64,000 tons of copper. This will bring the total annual capacity of the four mines to about 300,000 tons of copper.

Smelting is carried out at all the mines except Nchanga, which is served by the Nkana smelter, the product being a high grade of blister copper containing 99 to 99·5 per cent copper. A part of this blister is refined electrolytically at Nkana where Rhodesia Copper Refineries Ltd. have a refinery with an annual capacity of 65,000 tons, which is now being extended to 130,000 tons, with provision for treating Nchanga blister. An electrolytic refinery now under construction at Mufulira is expected to be operating with a capacity of 36,000 tons in 1952, and electrolytic copper will also be recovered at Nchanga from a leaching plant treating oxide concentrates. During the next few years, therefore, Northern Rhodesia's output of electrolytic copper should increase from the 1950 level of 77,000 tons to nearly 200,000 tons. A little more than half the electrolytic copper is exported to the United Kingdom, the balance going mainly to South Africa and Europe. At present, however, the greater part of the Rhodesian output is exported as blister copper, and more than 80 per cent of it comes to the United Kingdom for fire-refining at a plant near Liverpool specially designed to treat it. This plant refines most of the Roan Antelope and Mufulira output ; the remaining blister is sent to Europe and the United States for refining and subsequent re-import into the United Kingdom. Northern Rhodesia at present supplies four-fifths of the blister copper imported into the United Kingdom, but only one-fifth of the electrolytic copper, the remainder being imported mainly from hard currency sources. In a few years time, however, the increase in her refinery capacity should enable Rhodesia to supply most or all of the United Kingdom requirements.

The by-products of the Rhodesian copper industry are cobalt, which is of considerable importance at Nkana, and silver, gold and selenium which are recovered in small amounts from the electrolytic refinery. Plans are also in hand for producing the industry's requirements of sulphuric acid from the smelter gases, and the copper companies have been participating in an investigation of the coalfields of Northern Rhodesia with a view to improving their fuel supplies.

Copper mining in Cyprus dates back to the Bronze Age or earlier, but the modern industry has developed in the last generation, and mainly since 1935. The ores mined are cupreous pyrites containing 1½ to 4½ per cent of copper, and after concentration yield copper concentrates containing 18 to 20 per cent copper, and pyrites concentrates usually containing 0·6 to 1·5 per cent. copper. The main value of the latter lies in their sulphur content, and the copper is only recovered after the pyrites has been burnt at sulphuric acid works. Small quantities of copper precipitate are also recovered from mine and plant waters. In the post-war period, production and exports of copper concentrates has come entirely from the Mavrovouni mine of the Cyprus Mining Corporation. The Mavrovouni mine and the Kalavasos mine (Hellenic Mining Corporation) are together responsible for almost the whole output and exports of copper and iron pyrites, which amounted in 1950 to nearly 650,000 tons valued at over £2 million. Since 1945, production has increased steadily and rapidly in volume and value, and it is expected that this trend will be strengthened with the coming into production of a third and possibly also other mines, in the near future.

Copper concentrates and pyrites are exported to the Continent, and to a less extent to the United States, to plants better suited to treat them than are those of the United Kingdom.

There appear to be fairly large deposits of copper at Kilembe in the Ruwenzori Mountains of Uganda. Drilling is being carried out by a Canadian company to determine their extent, in the hope of proving a sufficient tonnage of ore to justify the high cost of developing mines and opening up communications in this remote area.

Gold

Production of gold in the Colonial territories in 1950 amounted to 923,509 fine troy ounces and this constituted less than 5 per cent of total British Commonwealth production or 3·8 per cent of world production, excluding the U.S.S.R.

Up to the early years of the late war, total output reached record amounts in each successive year notably because of substantial increases in output in the Gold Coast, Kenya, Tanganyika, Cyprus and Fiji. In addition, most other Colonial territories also showed fractional growth in gold output in the same period. The increased sterling price of gold on devaluation in 1931 was undoubtedly a major cause of this increase, particularly in the Gold Coast where low-grade properties, long dormant, were reopened and new ones brought into production.

The price of gold has been controlled since the early days of the war, and has risen far less than that of most other important commodities. The price which had been about £7 2s. per fine ounce in 1938, was fixed at £8 8s. per ounce in 1939, and remained at that price until 1945, when it was increased to £8 12s. 3d. When sterling was devalued in 1949 the dollar price of gold remained fixed, and the sterling price accordingly rose to £12 8s. per ounce.

Concentration of the gold mining industry, material and labour shortages, and priority of other activities during the war led to a decline in gold output in all the major Colonial producing territories. There was a similar trend in all the major world gold producing countries, and in recent years the rise in costs while the dollar price of gold remained "fixed" discouraged any great expansion. The increase in the sterling value of gold in 1949 has not stimulated production to the extent envisaged owing largely to increased production costs.

The Gold Coast, with a record output of 888,887 ounces in 1941, is by far the most important producer of gold in the Colonial Empire. In all it is estimated to have yielded over 30 million ounces of gold, and in recent years has been responsible for about 70 per cent of total Colonial production, as will be seen from the table attached, where the producing territories are shown in order of importance in 1948.

Fiji, where gold production has made a more rapid recovery towards its maximum output (of over 118,000 ounces in 1941) than any other Colony now takes second place among Colonial gold producers, against eighth in the previous issue of this survey.

Gold production in Tanganyika as in other countries has been severely affected by rising costs, but there has been an increase in output since the sterling price of gold was increased in September 1949.

Kenya, Nigeria, and Sierra Leone, all exhibit a downward trend in production.

In British Guiana there has recently been renewed interest in prospecting for gold particularly on the part of Canadian and American companies.

Malayan production has declined in the period under review on account of the war damage sustained at the Raub reef mine which contributes the bulk of Malayan gold production. Rehabilitation is well in hand and output is already showing a substantial increase towards

GOLD PRODUCTION
(Fine Troy Ounces)

	1938	1941	1946	1947	1948	1949	1950
Gold Coast	674,927	888,887	585,910	558,011	672,388	676,931	689,429
Fiji	92,362	118,681	82,401	94,353	93,059	104,036	103,423
Tanganyika Territory	81,857†	142,685†	49,952	46,842	57,189	69,042	65,127†
Kenya	69,000	72,147	29,892	21,959	23,429	20,072	22,946
British Guiana.. ..	38,482	33,089	22,712	24,225	18,955	19,368	12,613
Malaya	40,790	24,804‡	445	5,312	10,212	13,617	18,436
Swaziland	1,246	537	4,914	5,637	3,110	2,841	1,794
Nigeria	24,815	19,281	4,881	2,203	2,899	2,515	2,237
Sierra Leone	30,443	36,938	183	2,400	2,193	2,272	3,778
Bechuanaland	18,653	14,509	9,738	7,382	1,502	300	264
Uganda†	20,502	9,505	2,176	1,366	1,158	648	590
Northern Rhodesia ..	1,092	3,401	6,838	779	1,180	1,186	1,432
Sarawak	18,520	6,832	17	389	599	1,523	1,440
Cyprus	29,245	21,401	—	—	—	—	—
Total Colonial Territories..	1,141,934	1,392,697	800,059	770,858	887,873	914,351	923,509
£'000	8,139	11,699	6,891	6,639	7,647	*	11,452
Total British Commonwealth..	21,200,000	24,030,000	17,199,000	16,863,000	17,785,000	18,507,000	18,756,000
£'000	151,100	201,850	148,126	145,233	153,130	*	232,574
World Total § ..	32,300,000	40,000,000	21,300,000	21,800,000	22,400,000	23,400,000	24,200,000
£'000	230,000	336,000	183,000	188,000	192,000	*	297,600

* Owing to devaluation an accurate value is not possible.
† Exports.
‡ January to September only.
§ World total figures exclude production in U.S.S.R. owing to the widely divergent nature of the estimates, which range from 2,000,000 to 18,000,000 ounces per annum.

the former level. A small amount of gold is also recovered from tin-bearing and other alluvials.

Cyprus, whose production rose from nil in 1933 to 29,245 ounces in 1938, has again disappeared from the list of Colonial producers. This is partly attributable to the temporary working of a rich gold deposit by an American company, normally producing pyrites, which was anxious to continue mining operations and to find employment for its staff, during a period of depression in the pyrites market. But there is a prospect of renewed gold production from the Limni mine which has a gold-silver-copper ore.

Bauxite

The main sources of bauxite, which is the ore from which aluminium is produced, are the British and Dutch Guianas and the U.S.A. which together produce over two-thirds of the world output. At present the only colonial producer apart from British Guiana is the Gold Coast, but production of bauxite in Jamaica is expected to begin by 1952. There are known deposits of various grades in other Colonial territories including Malaya, Nyasaland and Sarawak.

BAUXITE PRODUCTION
(long tons)

	1938	1945	1946	1947	1948	1949	1950
Gold Coast*	—	146,330	114,246	95,898	130,953	145,013	114,948
British Guiana ..	447,370	669,164	1,115,966	1,358,929	1,944,966	1,796,409	1,642,036
Malaya	55,081	—	—	—	—	—	—
Total Colonial Territories.. ..	502,451	915,494	1,230,212	1,454,827	2,075,919	1,941,422	1,756,984
Total British Commonwealth ..	519,000	969,000	1,244,000	1,472,000	2,102,000	1,989,000	1,812,000
World Total.. ..	3,900,000	3,920,000	4,650,000	6,170,000	8,270,000	8,350,000	8,260,000

* Exports.

The deposits in British Guiana which are among the largest and richest in the world, occur chiefly in three separate areas, Mackenzie on the Demerara River, the Ituni River and near Kwakwani, Berbice River. Bauxite has been mined in British Guiana since 1917, in which time output has risen from around 2,000 tons a year to over 1,600,000 tons in 1950. The principal company operating in the colony is the Demerara Bauxite Co., a subsidiary of Aluminium, Ltd., of Canada, which has a crushing and washing plant at Mackenzie. The ore is shipped mainly to Canada for extraction of alumina and its conversion to aluminium. An American company and also a British company have interests in bauxite deposits in British Guiana. The Demerara Bauxite Co., has recently commenced the construction of new kilns and improved rail facilities at Mackenzie which are expected to make possible an increase in annual output of some 400,000 tons by 1952. It is also proposed to construct plant for the production of an aluminous compound used in the refractory industry.

There are considerable deposits of bauxite in the Gold Coast and reserves have been estimated by the Geological Survey Department at over 200 million tons. The chief deposits are at Sefwi Bekwai in the Wiawso district of the Western Province and at Yenahin in Ashanti. Working of the Sefwi Bekwai deposits began in 1941 and a railway was constructed to link the deposits with the main line from Takoradi to Kumasi which is about 50 miles away. The British Aluminium Co. was the only company in operation at the end of 1950 and is engaged in mining in the Sefwi Bekwai area where production is running at about 130,000 tons annually ; it is estimated that this rate can be increased to 300,000 tons by the end of 1952. The largest deposits are at Yenahin in Ashanti, but they have not yet been worked owing to the difficulty of transporting the ore ; other important deposits which are not at present being worked are at Mount Ejuanema in the Mfraeso district of Eastern Province.

The bauxite deposits in Jamaica discovered in 1942 are at present being developed by Canadian and American interests with assistance from E.C.A. funds. Jamaica Bauxites, Ltd., a subsidiary of Aluminium, Ltd., of Canada, is erecting plant for the extraction of alumina in Jamaica, while Reynolds Jamaica Mines, Ltd., a subsidiary of Reynolds Metal Co., of the U.S.A., and the Kaiser Aluminum and Chemical Corp., will export bauxite. The bauxite will be exported to the U.S.A. and the alumina to Canada and repayment of the E.C.A. loans will be made by delivery of aluminium to the U.S. stockpile. The total production of the three companies is expected to reach 775,000 tons a year by 1952 or so, of which some 100,000 tons will be converted locally into alumina. Total production may reach three million tons of bauxite in another 10 years. The full development programme is estimated to involve an investment of around £22,000,000.

Bauxite was mined in Malaya between 1936 and 1945 by Japanese interests for export to Japan, but mining has since ceased. Recent surveys made in Malaya suggest that the occurrence of bauxite is more widespread than was formerly supposed.

The occurrence of bauxite on the Lichenya Plateau in Nyasaland has been known since 1924 and reserves are estimated at some 60 million tons. The remoteness of the situation and the presence of large percentages of quartz in the ore have discouraged development.

Considerable quantities of bauxite have recently been discovered in Sarawak and prospecting is continuing. Laterite, another source of alumina, not used at present, occurs in many parts of Northern Rhodesia, Sierra Leone, Tanganyika and Uganda.

Manganese

Since 1944 the Gold Coast has been the world's largest exporter of high-grade manganese ore, and in recent years this colony has provided more than half the Commonwealth production of this ore, and about 15 per cent of world production. The trend of Colonial production in recent years is shown in the following table :—

MANGANESE ORE PRODUCTION
(long tons)

	1938	1945	1946	1947	1948	1949	1950
Gold Coast*	324,207	701,750	765,300	588,919	629,973	741,585	711,367
Northern Rhodesia ..	2,735	1,934	1,398	—	3,898	3,975	1,723
Malaya	31,970	2,500†	—	—	—	—	—

* Exports.
† Average annual production during Japanese occupation.

Nsuta, near Tarkwa, in the Western Province, where manganese deposits were discovered in 1914, is now the site of the largest single manganese mine in the world. Exports, which commenced in 1916, reached a peak of 765,300 tons in 1946. The ore is high grade and is worked in great opencasts ; the bulk of it consists of metallurgical grades, but there is also a very valuable output of battery and chemical ore. To the end of 1950 exports have totalled about 12 million tons. They reach a wide market, supplying the needs of the parent company's ferro-alloy plants in the United States, Canada and Norway, as well as independent consumers in the United Kingdom and Europe. Until 1940 India was the principal source of the United Kingdom's manganese supplies and imports from Africa were unimportant, but since that date the Gold Coast has been the leading source, supplying almost all the imports in the years 1944-46. In recent years the United Kingdom has received about a third of the Gold Coast output, which provides about half her imports. The producing company, African Manganese Co., Ltd., has other manganese concessions under development in the Gold Coast, and small deposits at Dixcove have been worked by other companies.

In Malaya, before the late war, deposits of rather low grade manganese ore were worked in Trengganu and Kelantan by Japanese companies for export to Japan. In all, about 400,000 tons have been exported since 1925.

There is a small production of manganese ore in Northern Rhodesia solely for use in the Broken Hill zinc plant. The deposits are neither high grade nor extensive.

Although manganese ore has been found, usually in small quantities, in many Colonial territories, only the deposits mentioned above appear to be of economic significance for metallurgical purposes. On the other hand, the relatively high value of battery and chemical grade ores allows of their intermittent production even from small deposits in areas of high transport costs, e.g., Fiji.

Chromite

Chrome ore is used mainly in the steel industry as ferro-chrome for alloy steel production, and as a refractory. It has also other important metallurgical and chemical uses.

Chromite is mined in Sierra Leone and Cyprus, but their combined output is only 5 per cent of the Commonwealth production (which is dominated by the Union of South Africa and Southern Rhodesia) and 2 per cent of world production. Colonial deposits also exist in Tanganyika and North Borneo, but present information indicates that these deposits are uneconomical to work.

The trend of Colonial production in recent years is indicated in the following table :—

PRODUCTION OF CHROMITE
(long tons)

	1938	1945	1946	1947	1948	1949	1950
Sierra Leone	1,300	569	10,138	16,504	7,761	21,752	7,399
Cyprus	7,442*	732	2 740	4,840	10,847	16,371	16,371

* Exports.

In Sierra Leone practically the whole of the 70 mile long chromite belt is the subject of a special Exclusive Prospecting Licence held by the Sierra Leone Chrome Mines Company Ltd. over 1,893 square miles in the South-Western and South-Eastern provinces extending in a north-easterly direction through the Kenema and the Pujehun districts. Small deposits near Hangha in the east of the Protectorate are worked, and since 1937 a total of 130,000 tons has been produced. The ore is hand-sorted and metallurgical grades are exported to the United States and refractory ore to the United Kingdom. Output was at a record level in 1949 and it is hoped to increase it further and to install a concentrating plant.

In Cyprus chromite is found in the Troodos area and deposits are worked by the Cyprus Chrome Company Ltd. The ore is transported by aerial ropeway, two-and-a-half miles long, to a concentrating plant where the low grade ore is sorted and concentrated, the high grade being exported in lump form. Total exports of lump ore and concentrates since 1935 amount to about 60,000 tons. The products are of metallurgical grade and are sold in the United States and the United Kingdom. Current production is of the order of 13,000 tons of concentrates and 3,000 tons of lump ore annually.

Cobalt

Cobalt is an important by-product of copper production at Nkana in Northern Rhodesia. This mine, which since 1933 has yielded about 12,000 tons of cobalt valued at £11 million, is the sole producer in the Colonial territories and one of the major sources of cobalt in the world. Statistics of production, in terms of long tons of cobalt content, for the major producers are shown in the following table :—

PRODUCTION OF COBALT
(long tons : cobalt content)

	1938	1946	1947	1948	1949	1950
Belgian Congo	1,508	2,120	3,450	4,230	4,334	5,067
Northern Rhodesia ..	1,438	467	381	388	512	659
Canada	205	33	256	690	276	280
Estimated world total ..	4,300	3,200	5,000	6,000	5,700	6,800

Rhodesian production reached a maximum of 1,557 tons in 1939, and the subsequent decline has been largely due to the lower cobalt content of the ore treated, the choice of which is determined by copper production policy, and resulting metallurgical difficulties. Hitherto the product exported has been a crude cobalt-copper alloy containing 37 to 41 per cent cobalt, which is at present refined in the United Kingdom. Recently a new cobalt extraction process has been developed which should increase recovery by 50 per cent, and the necessary plant is now being installed in Northern Rhodesia. When this plant is in operation refined cobalt metal and oxide will be produced at Nkana, the production target being 1,200 tons annually. This should meet the greater part of the United Kingdom's requirements which at present involve considerable imports from Belgium and Canada.

Iron

The Colonial territories contain large potential reserves of iron ore, but most of the deposits are too remote from markets or supplies of coking coal to be of value in present conditions. Important iron-mining industries have been established in Sierra Leone and Malaya, and small quantities of ore are produced in Northern Rhodesia and Hong Kong, but, except for primitive native iron making, now almost extinct, no iron ore is smelted.

The scale of operations is indicated by the following statistics :—

IRON ORE PRODUCTION
(long tons)

	1938	1945	1946	1947	1948	1949	1950
Sierra Leone†	861,955*	705,799	633,194	744,890	868,023	985,353	1,073,779
Malaya ..	1,581,838	13,375	—	888	641	8,390	498,903
N. Rhodesia	205	75	159	1,504	147	1,721	—
Hong Kong	—	—	—	—	908	59,181	169,374

* Exports
† Production figures for Sierra Leone exclude " washed fines," for which there is no market.

The mine at Marampa, Sierra Leone, is the only important iron mine yet developed in British West Africa. Since shipments commenced in 1933 more than 10 million tons of low-phosphorous hæmatite ore and concentrates have been exported, mainly to the United Kingdom and Europe. Exports reached a peak of 1,030,000 tons in 1941, when they were of great value to the war effort, and after a decline in the later war years have risen to over 1,000,000 tons in 1949. Mining is opencast and production costs are very low, so that Sierra Leone, which is normally the furthest source from which the United Kingdom and Europe import iron ore, can compete successfully with the major suppliers, Sweden and North Africa, which lie much nearer. In recent years Sierra Leone has provided about 9 per cent of the United Kingdom's imports of iron ore, the only other Commonwealth supplier being Newfoundland. There are much larger deposits of high-grade iron ore in the Tonkolili area further inland than Marampa, and the development of these deposits is now under consideration.

In Malaya several mines yielding good-grade haematite were worked by Japanese companies in Trengganu, Johore and Kelantan from 1921 to 1941, and in that period more than 18 million tons of ore were exported to Japan. Between 1929 and 1941 this was the principal source of the iron ore smelted in Japan, and the industry reached its maximum production of more than 2 million tons in 1940. The mines were idle during the occupation, when Japan took iron ore from China, but the export of ore to Japan was resumed in 1948, and after more than half a million tons of ore had been shipped from old stocks, mining recommenced in December, 1949. Although some of the mines are nearly worked out, other deposits contain considerable reserves. Magnetite production at Ma On Shan, Hong Kong, for export to Japan, is a recent development. The little iron ore mined in Northern Rhodesia is used locally at the copper smelters and zinc plant.

The more outstanding undeveloped iron ore deposits in the Colonial territories include the phosphoric oolitic ironstones of Mount Patti, Nigeria, the magnetites of eastern Uganda, the titaniferous magnetites of south-western Tanganyika and the haematites of Northern Rhodesia. Plans for establishing an iron and steel industry in Uganda and for smelting the Northern Rhodesian ores, in both cases linked with hydro-electric schemes, are now under consideration.

Niobium

Nigeria provides almost the whole of the world's output of niobium ores, in the form of columbite concentrates. The columbite occurs in alluvial deposits in the tinfields, and is largely a by-product of tin mining. Since the value of this mineral was established in 1933, a total of 13,880 tons of columbite concentrates has been produced, averaging 60 to 65 per cent niobic oxide, and valued at over £2,700,000. The trend of production is shown by the following statistics :—

	1934	1937	1940	1943	1944
Long tons	16	717	396	802	2,055

	1945	1946	1947	1948	1949	1950
Long tons	1,571	1,550	1,286	1,096	888	864

The peak production of 1944 included a considerable tonnage recovered from old tailings dumps, since exhausted, and the current output of under 1,000 tons a year is as much as can be produced at present prices.

Reserves of columbite appear to be limited, being estimated by the Mines Department in March, 1950 as 7,000 tons proved and 2,276 tons indicated. Until 1946 the United States was almost the only market for Nigerian columbite, but with the development in Great Britain of high temperature alloys for jet engines and other special purposes, a considerable demand has arisen in the United Kingdom, and in 1949 exports from Nigeria were 596 tons to the United States and 349 tons to the United Kingdom. Columbite prices have risen from an average of about £195 per ton f.o.b. Nigeria in 1947 to about £325 at the beginning of 1950, and if the present demand is to be met further increases may be necessary.

Small tonnages of columbite have been mined in Uganda, the maximum annual output being 15 tons in 1944, and it is doubtful whether a larger output could be maintained for long. Pyrochlore, another niobium mineral, also occurs in Uganda, and the question of working it is now under consideration.

Columbite has been produced intermittently in Malaya, where 8 tons was produced in June 1950.

There are also deposits of niobium ores in British Guiana, but they are rather inaccessible. They have been taken up and are being prospected by an American company.

Lead and Zinc

These two metals are so often associated with one another in their mode of occurrence that they may conveniently be considered together. The production of lead and zinc in the Colonial territories amounts in each case only to 4 or 5 per cent of that produced in the Commonwealth as a whole, and to just over 1 per cent of total world production. At the moment, Northern Rhodesia is the only lead-zinc producer of any importance in the Colonial territories, but production has also started in Tanganyika, and the development of lead and zinc mining is expected in Nigeria, as a result of prospecting which is being carried out.

Production in Northern Rhodesia comes from the complex lead-zinc-vanadium ores of the Broken Hill mine of Rhodesia Broken Hill Development Co. Ltd. In recent years this company has considerably increased its output of lead and zinc ; its equipment includes an electrolytic zinc plant, a new lead smelter and a rolling mill where antimonial lead sheet and pipe are made for use by the copper-mining companies. Deposits of willemite are known at the Star Claims, near Lusaka, but are not worked.

In Tanganyika, Uruwira Minerals Ltd. is actively engaged in developing a lead property at the Mukwamba Mine, Mpanda. Production has already started, and over 3,000 tons of mixed concentrates were exported in 1951, most of it going to Belgium. A railway connection has now been made to the mine. The ore is a complex one containing copper, gold and silver, in addition to lead. Other lead deposits in Tanganyika are known and prospecting operations are in progress on some of them.

Before the war some lead ore was produced in Nigeria, but production ceased in 1938. More recently, interest in Nigerian lead-zinc deposits has been renewed and promising results are being obtained in prospecting and development work on several deposits in southern Nigeria. The deposits are confined to the basins of the Benue and Cross rivers and form a belt 20 or 30 miles wide extending some 350 miles in a north-easterly direction from Ishiagu near Okigwi in south-eastern Nigeria to Gwana in Bauchi province. The main areas of interest at present are Abakaliki, Arufu, Akwana and Zurak.

In Hong Kong, the then newly developed Lin Ma Hang Mine attained a production of over 3,000 tons of lead in 1939. A smelter was nearly completed when the Colony was overrun by the Japanese, who worked the mine during their occupation. There are some other deposits of argentiferous galena in Hong Kong in addition to that at Lin Ma Hang.

Among other Colonial territories with lead or lead-zinc occurrences may be mentioned Kenya, British Somaliland, Bechuanaland, Nyasaland, Malaya and Uganda. On present evidence it is doubtful whether any of these can be taken seriously as economic sources of lead.

LEAD AND ZINC PRODUCTION
(long tons)

	1938	1945	1946	1947	1948	1949	1950
Lead ore (in terms of metal)							
Nigeria	296	—	—	71	269	28	12
Northern Rhodesia (smelter) ..	273	1,720	8,239	15,640	13,020	13,945	13,685
Zinc ore (in terms of metal) ..							
Northern Rhodesia	12,498	15,576	17,568	21,600	23,940	27,180	37,668

The prices of lead and zinc have increased greatly since before the war, and a serious shortage of zinc developed in the later part of 1950. The lead price, which had averaged £15 per ton in 1938, had risen to £97 per ton by the end of 1949, and £136 per ton at the end of 1950, the selling price at the end of 1951 being fixed at £175 per ton by the Ministry of Supply (now the Ministry of Materials), which was the sole U.K. importer. Similarly, zinc, which had averaged £14 per ton in 1938, was £86 per ton at the end of 1949, £151 per ton at the end of 1950, and the Ministry of Materials selling price was £190 per ton at the end of 1951.

Platinum

Platinum is produced in the Colonial territories only in Sierra Leone where it was discovered in 1926. Output, which commenced in 1929 and reached a maximum of 750 troy ounces in 1935, has totalled only about 6,000 ounces altogether.

Production in recent years has been as follows :—

	1938	1945	1946	1947	1948	1949	1950
Troy ozs.	180	19	105	431	109	38	—

The mode of occurrence of these alluvial deposits is such that it is improbable that they can be extensive, and hence that output will ever be very large.

The existence of platinum, palladium and osmiridium in economically interesting amounts has been confirmed in an area recently examined by the Geological Survey of Tanganyika in the north-western part of the Territory.

Platinum is known to occur in Kenya, Nyasaland, and Somaliland, and a palladium mercuride has been discovered in British Guiana, but in none of these cases are there known to be economic quantities of these minerals.

Silver

Colonial production of silver, which in 1950 amounted to 288,000 ounces, is only of the order of one-tenth of 1 per cent of total world production. Nowhere in the Colonial territories is silver worked by itself, and in all cases output originates as a by-product of base metal and gold ore treatment. Output trend has, therefore, closely followed that of the metal with which it is worked.

This situation is most marked in the case of Northern Rhodesia, the largest Colonial producer of silver, where output is directly related to and entirely originates from copper output, being recovered from refinery slimes. Output in 1950 totalled 173,304 ounces. With the increasing extent to which the copper is being refined electrolytically, it may be expected that the output of by-product silver will be increased in this Colony in the future. The output of silver from Cyprus, the leading Colonial producer in the previous Survey, has declined for the same reasons as gold output. Gold Coast silver comes from gold ores and the future trend of the two precious metals is therefore inter-related. Similarly in Fiji, the third largest Colonial producer, which produced 37,740 ounces in 1950, silver is a by-product obtained in the treatment of gold ores, as it is in Tanganyika, whose exports are about 30,000 ounces. Silver output in both Tanganyika and Nigeria may be expected to show gains in the future consequent on the development and working of lead and zinc ores in those territories.

Tantalum

Tantalum ores have been mined in Uganda since 1936 and in Nigeria since 1944, but in recent years production has been very small. Most of the known deposits in these territories are small and scattered, and mining is generally short-lived and speculative. The ore, tantalite, is commonly associated with tinstone, columbite and beryl, and while sometimes this may make mining more profitable, in other cases it introduces serious ore-dressing difficulties. While some deposits yield high-grade concentrates containing 60 to 80 per cent tantalic oxide which may realise £600 to £1,000 per ton, the concentrates from adjacent deposits may contain only 40 or 50 per cent tantalic oxide and be saleable only with difficulty and at very reduced prices. The United States is the only important market for these ores and draws supplies mainly from the Belgian Congo and Brazil, while the United Kingdom imports only a few tons annually, largely from Southern Rhodesia. Total production in Uganda to the end of 1950 amounted to about 90 tons, obtained mainly in the years 1936-38 and 1943-45, including a little very high-grade material and much of low grade. In Nigeria mining commenced during the war in response to a United States purchasing drive and 25 tons of high-grade concentrates were produced in 1944-45, but production ceased for a time at the end of the war and has since been on a very limited scale, the total output to the end of 1950 being 41 tons.

Titanium

Ilmenite, the principal titanium ore, occurs in several of the Colonial territories, but it is worked only in Malaya where it is available ready for export in the "amang" tailings dumps of many tin mines. Reserves in the numerous dumps total about 300,000 tons, and dumps may be bought at a few shillings per ton. A total of 108,000 tons has been exported since 1935, the figures for recent years being as follows :—

Ilmenite : Exports from Malaya

	1938	1946	1947	1948	1949	1950
Long tons	6,462	—	13,081	13,566	19,718	24,915

Exports are mainly to England, with smaller sales in Europe, but the quantity is small in comparison with world production which now exceeds 800,000 tons annually, derived mainly from the United States, India and Norway. Ilmenite is one of the cheapest ores in international trade, the principal exporters, India and Norway, selling it at between £2 and £3 per ton, and transport charges make up a large part of the cost to consumers. The value of the Malayan mineral was assessed for customs purposes at $1 Straits per ton until October 1949, when it was raised to $2 per ton, but handling and freight charges bring the price delivered in England to £6 to £7 per ton. The low price of ilmenite precludes economic production from deposits in inland localities such as Nyasaland and the Nigerian tinfields. Deposits near Freetown, Sierra Leone, have recently been investigated with a view to production for export, but despite the favourable location, the project has been abandoned.

Rutile, another important titanium ore, occurs in the Colonial territories, but the known deposits could not be worked economically in competition with those in Australia and the United States which supply world requirements without difficulty. Enormous deposits of titaniferous iron ores exist in the interior of Tanganyika, and on a lesser scale in several other Colonies, but as similar deposits in more industrialised countries lie unworked, they are not likely to be utilised in the near future.

Tungsten

Tungsten production in the Colonial territories now amounts to less than 1 per cent of the world total, as compared with 8 per cent in 1936 when Malaya was a major producer. The ten large producers of the last decade have been led by the United States, China, Bolivia and Portugal. The Colonial producers are Malaya, Uganda, Tanganyika and Nigeria. In these four territories the deposits occur in tin-bearing regions, but for the most part they are mined independently, and wolframite is the principal ore in all cases, although scheelite is also important in Malaya. Recent statistics of production in terms of the marketable concentrates which contain about 65 to 70 per cent tungstic oxide, have been as follows :—

PRODUCTION OF TUNGSTEN (Long tons—Concentrates)

	1938	1945	1946	1947	1948	1949	1950
Malaya	891	25	9	44	75	58	15
Nigeria	44	5	5	3	3	5	5
Uganda	1	53	79	131	164	174	144
Tanganyika	3(*a*)	—	—	—	1	51	41(*a*)

(*a*) Exports.

In considering the figures in the above table, it is important to emphasise the fact that recent outputs are unrelated to past achievements and may not be a safe guide to future prospects. Tungsten is subject to fluctuations in demand and price which are much more marked than those affecting most other minerals, and in addition most tungsten deposits are small and are often worked out in a few years. These two factors contribute to explain the characteristic instability of tungsten mining in many countries and have also tended to discourage extensive investment in the industry. During the past 20 years prices of concentrates have ranged between about £50 and £400 per ton, reaching maxima in 1937 and 1947-48. At the end of 1951, the U.K. Ministry of Materials selling price for ore was 535s. a long ton unit.

Tungsten mining in Malaya dates back to 1901, and there has been a considerable production of wolfram in Kedah, Trengganu and Selangor, and of scheelite in Perak. Output reached a first peak of 1,494 tons in 1918 and a maximum of 1,639 tons in 1936. One rich mine at Kramat Pulai, yielded about 8,500 tons of scheelite between 1929 and 1939 when the ore was exhausted, but search for similar new orebodies in the vicinity is continuing. Recent production has been relatively small.

In Nigeria small wolfram deposits occur mainly along the northern edge of the tinfield, and when first opened up an appreciable tonnage was mined—240 tons in 1939—but this could not be maintained and when special efforts were made to revive the industry in 1942-43, the production attained was only 90 and 68 tons respectively. Subsequent production has been almost negligible. Uganda has recently been the leading Colonial producer, mainly from deposits in the extreme south-west of the territory which appear to be quite promising. Tanganyika first attained a significant production in 1949 when output reached 51 tons.

Vanadium

The Rhodesia Broken Hill lead-zinc-vanadium mine in Northern Rhodesia is the only vanadium producer in the Colonial territories, and one of the few important vanadium mines in the world. Since 1921 it has yielded concentrates and fused vanadium pentoxide containing about 4,800 tons of vanadium valued at about £4,800,000. The principal vanadium producers, with their 1947 outputs, are the United States 946 tons, Peru 428 tons, South West Africa 222 tons, and Northern Rhodesia 56 tons, and broadly speaking the first two meet all American requirements while the African producers supply the United Kingdom and European markets. At the Broken Hill mine the vanadium ore can be worked separately from the lead-zinc ore, so that vanadium production can be varied according to market conditions. Production reached a maximum of 420 tons in 1943 when war-time demand was at its peak, but has been much reduced in later years, owing to the limited demand, and operations were suspended in 1946-47 and 1950. The product now exported is fused vanadium pentoxide containing about 52 per cent vanadium, and the output in recent years in terms of vanadium content has been as follows :

VANADIUM PRODUCTION — NORTHERN RHODESIA
(Long tons)

1938	1943	1944	1945	1946	1947	1948	1949	1950
368	420	251	216	67	56	171	151	nil

II. PRECIOUS STONES

Diamonds

Sierra Leone, Tanganyika, and the Gold Coast are all important producers of diamonds. There is also a comparatively small production in British Guiana. Production from these sources amounts to about 1¾ million carats annually. This constitutes under one-half of the total British Commonwealth production, or about 12 per cent of the total world production as shown in the table overleaf.

A notable feature of Colonial diamond production is the considerable variation in tenor (grade) of the diamondiferous deposits worked in the different territories, and in the size and quality of the diamonds produced. In all cases the deposits are alluvial, although in the case of Tanganyika kimberlite pipes are known to occur in association with the alluvial deposits. Colonial output consists rather more of industrial grades than gemstones, the proportions being 76 per cent of industrial diamonds in the Gold Coast, 63 per cent in Sierra Leone, and 50 per cent in Tanganyika.

In the Gold Coast the average tenor of the gravels worked in 1950-51 was 1.54 carats per cubic yard, and the average value of the diamonds exported only £2 1s. 1d. per carat. The diamonds are characterised by their very small size, many only averaging one-hundredth carat, and grease tables are employed to recover these very small stones. The average grade of the Sierra Leone

DIAMOND PRODUCTION

	Unit	1938	1945	1946	1947	1948	1949	1950
Gold Coast								
Gem diamonds ..	carat	398,869	264,930	253,443	262,397	320,356		
	£	358,541	274,706	338,225	402,492	616,513		
Bort	carat	553,457	275,049	241,104	202,003	297,516	963,435	932,452
	£	84,376	61,888	71,393	74,873	107,287	1,388,246	1,837,450
Diamond sand ..	carat	344,437	272,471	314,453	282,634	260,220		
	£	105,110	142,812	212,907	269,197	252,260		
Sierra Leone	carat	689,622	503,999	559,232	605,554	465,698	494,119	655,485
	£	818,925	598,750	806,412	1,211,108	1,106,032	1,173,532	1,884,519
Tanganyika Territory	carat	3,576	119,139	120,045	87,943	149,926	194,874	164,996
	£	3,558	657,746*	986,870*	602,410*	83,215*	1,679,976*	1,787,142
British Guiana ..	carat	32,522	15,852	31,732	24,669	36,563	34,790	37,462
	£	74,273	95,276	288,718	155,659	295,679	243,350	287,259
Total Colonial Empire	carat	2,022,483	1,451,440	1,520,009	1,465,200	1,530,279	1,687,218	1,790,395
	£	1,444,783	1,831,178	2,704,525	2,715,789	3,331,513	4,485,104	5,796,370
Total British Commonwealth ..	carat	3,418,000	2,828,000	3,034,000	2,888,500	3,115,700	3,231,050	4,028,000
	£	5,710,000	9,432,000	13,040,000	11,816,300	14,480,800	15,638,000	23,300,000
World Total ..	carat	11,473,000	14,468,000	10,359,000	9,660,000	10,258,000	14,176,000	15,259,000
	£	7,800,000	14,032,000	18,340,000	16,820,000	19,380,000	22,780,000	31,460,000

* Estimated on export value.

gravels in unknown, but some very rich patches up to 250 carats per cubic yard have been encountered and occasionally some very large stones produced (including one of 770 carats which is probably the largest alluvial diamond ever found). The stones themselves average two to the carat and the average value in 1948 was £2 7s. 6d. per carat. In Tanganyika the yield in 1949 was 24·5 carats per 100 loads, equivalent to about 0·4 carats per cubic yard at the Williamson mine, and 17·5 carats per 100 loads or 0·29 carats per cubic yard at Alamasi. This is offset by the fact that the average value of Tanganyika diamonds exported in 1949 was £8 12s. per carat. In British Guiana where the average tenor is unknown, the diamonds, which are typically about seven to the carat, were valued at £7 13s. per carat in 1950.

One of the principal developments in the Colonial diamond-producing industry in recent years has been the rise in the Tanganyika output from some 5,000 carats in 1935 to the 100,000 carat level since 1945, and to a little less than 200,000 carats in 1949. Although by weight this is still considerably less than the output of either the Gold Coast or Sierra Leone, the quality and size of the stones produced in Tanganyika is such that, on the basis of value, the territory in 1949 took first place amongst Colonial producers, but fell to third place among Colonial and fifth among Commonwealth producers in 1950.

Production in British Guiana in the last ten years has been much smaller than in the previous decade, but a new field has recently been discovered in the Colony which does something towards restoring the position. The high average value per carat of the diamonds exported is a notable feature of British Guiana diamonds.

Output from the Gold Coast and Sierra Leone remains at a high and fairly constant level, and in the former territory there has been a notable increase in output by African diggers consequent on the higher prices obtained for the diamonds produced. The same factor has also resulted in the Gold Coast diamond production reaching record values in recent years.

Alluvial diamonds occur in the British Borneo territories. There was a small production in Sarawak in the latter half of the nineteenth century. " Blue ground " (kimberlite) may exist in North Borneo. Diamonds have been reported but not in economic quantity in Nigeria, Kenya and Uganda.

With the exception of British Guiana and African production in the Gold Coast practically all Colonial diamonds are marketed through the Diamond Trading Company in London. The major part of British Guiana production is exported to the United Kingdom, the United States being the second largest importer.

There is virtually no diamond cutting and polishing industry in the Colonial territories except for a small factory which is in operation in Georgetown, British Guiana.

III. COAL, PETROLEUM AND ASPHALT

Coal

Although at the present time only Nigeria and Malaya are coal producers, the potential coal resources of the Colonial territories are very considerable. Comparatively few reliable figures of reserves are yet available, for, although some progress in this direction has been made in recent years, a tremendous amount of work remains to be done in exploring, testing, and assessing the many seams in the numerous coalfields already known to exist. It is evident, however, that much of this coal, valuable though it is, does not approach the quality of many European coals.

In Nigeria and in Malaya, coal production was started largely as a result of the exigencies of the 1914-1918 war, and in both countries large coal reserves are still available.

Nigerian coal has been worked for nearly forty years. The Enugu Colliery (operated until recently by the Nigerian Government and now by the Nigerian Coal Corporation) has, in recent years, been producing half a million tons or more of sub-bituminous coal annually. It is chiefly used on the Nigerian railways ; considerable quantities have also been supplied to the Gold Coast. The quality of the coal is such that, in normal circumstances, it could not compete in world markets. Boring is now being carried out to ascertain the immediate reserves of the colliery and also of the sub-bituminous coal in the Enugu area.

In Malaya, coal has been mined at Batu Arang in Selangor since 1915, and by the end of 1950 some 13 million tons had been won, all for local use. The year of peak production was 1940 with 781,509 tons. Although the coal is of a type not suitable for storage for more than a limited period, it is a very valuable asset to the country as a source of cheap power. Principal consumers are the Malayan railways and the Perak River Hydro-Electric Power Co., Ltd. Coal occurs in several other places in Malaya, but not in commercially workable quantities.

The British territories in Borneo are particularly well endowed with coal, especially Labuan, Sarawak, and Brunei. Indeed, coal was worked in North Borneo at Cowie Harbour from 1906 until 1930 and near Sandakan

Harbour from 1926 to 1930; in Labuan from shortly after 1846 until 1911; the Brooketon Colliery at Muara in Brunei was worked for over 25 years by the Rajah of Sarawak before closing down in 1925; the Sarawak Government mines on the Sadong River were operated from 1881 until as late as 1932. A reconnaissance survey recently made on behalf of the local governments showed that, except in Labuan, there are no short-term possibilities of coal production as so little is as yet known regarding the quantity, quality, and characteristics of the Borneo coals; but Sarawak is believed to possess good coking coal for which there should be an adequate market. Further investigation of the coal deposits is proceeding as Government geological staff becomes available.

In Tanganyika eight coalfields are so far known, of which three are very extensive. Coking coal has been proved only in the Kiwira-Songwe field. All the coalfields are situated in or near the Nyasa-Rukwa Valley, in the undeveloped south-western part of the country and are remote from existing railways. The extension of the railways will depend very largely on the results of the investigation of the coalfields now in hand. The Tanganyika Geological Survey in conjunction with the Imperial Institute have carried out a detailed investigation of the coals of the Namwele-Mkomolo field, which lies 100 miles beyond the end of the new branch railway to Mpanda. Investigations by the Colonial Development Corporation have indicated a gross tonnage of coal in the Ngaka region of over 200 million, of which 40 million tons are indicated as extractable and 20 million proved extractable. The Tanganyika Government will become a partner in the Corporation's coal mining enterprise.

Northern Rhodesia possesses several coalfields but none of these has been worked because all are situated at a considerable distance from the railway, and the coal used in the copper industry is obtained from the Wankie Colliery in Southern Rhodesia, the reciprocal transport of coal and copper having proved economical. Latterly, however, transport difficulties have prevented the copper belt receiving adequate coal supplies from Southern Rhodesia, and, as a result, the Northern Rhodesian Government has made arrangements for an investigation of the possibility of developing the local coalfields. Of these the Luano coalfield appears to present the best chances of economic exploitation. It lies in the Luano Valley, about 55 miles south-east of Broken Hill and has four workable seams containing probable reserves of 22,000,000 tons, as well as large possible reserves. In the Lufua and Losito Valleys, south of Kafue, two seams contain probable reserves of 38,000,000 tons, and there are large possible reserves. A number of less promising coalfields are also known.

In Nyasaland, there are three main coal areas, the Chiromo and Sumbu in the south and Mount Waller in the north. Coking coal has been recorded in the Sumbu and Mount Waller fields, but certain recent samples from Mount Waller were found to be non-coking. The Chiromo field, being the closest to the railway, was the first to receive detailed investigation, but the results of drilling were not promising. The Sumbu field was surveyed in 1941-1942, when it was estimated that it contained 45,000,000 tons of coal of a quality comparable to that being worked in the Transvaal. This field is situated 50 miles from the railway and 30 miles from the Shire River. The small Mount Waller field on the north-west shore of Lake Nyasa was remapped in 1947 by the Geological Survey Department, but no reliable estimate of the quantity of coal available could be made. Powell Duffryn Technical Services, Ltd., in association with the Geological Survey Department, has recently reported on this field.

There is every reason to believe that the coal resources of Bechuanaland are enormous. A very large part of the Waterburg Coalfield, the Transvaal portion of which is well known, lies in Bechuanaland. To the south-west of it is another large, elongated, gently-dipping syncline in which boreholes and wells have struck coal. Farther north in the Palapye-Serowe area is a third, and other areas proved to contain or likely to contain coal are known. The number of the coal seams and the great thickness of many of them—some are 50 to 100 feet thick—is remarkable, but virtually nothing is known as yet as regards their persistence, workability, and quality. Anthracite has been reported about 50 miles east of Mbabane in Swaziland.

The coal deposits of Trinidad are of poor quality, and of little commercial value. Some coal seams have been recorded in British Somaliland, but no evidence has been obtained as to their extent. In Kenya and Uganda thin seams have been noted in borehole cores, but there is no evidence to suggest that workable coal may exist.

Lignite

Several Colonial territories are well endowed with deposits of lignite, e.g., Sierra Leone, Nigeria, and North Borneo, but in none has lignite yet been utilised on a commercial scale. Other Colonial territories known to have deposits of lignite include Trinidad, British Somaliland, and Aden.

In Sierra Leone, in the absence of a better solid fuel, particular attention has been paid recently to the possible utilisation of the lignite deposits, of which upwards of 1,000,000 tons have been proved in the vicinity of Freetown. Tests have been carried out at the Imperial Institute and elsewhere to determine to what extent the material can be improved by washing and by briquetting the washed lignite.

In Nigeria the lignites, while not as thick or extensive as the Australian, American or German lignites, are nevertheless to be reckoned in hundreds of millions of tons. The main outcrops are found close to the Niger in Benin and Onitsha Provinces. It is unlikely that they will have any use as a straight fuel or even as briquettes without preliminary processing. The possibilities of the Nigerian lignites, whether as fuel, or for the production of oils, wax, or other chemical products, are under investigation by the Nigerian Coal Board.

Petroleum

Petroleum production in the Colonial territories is at present limited to Trinidad, Brunei, and Sarawak (with an insignificant contribution from Barbados). For some years the combined output of these territories has usually amounted to more than half of the total British Commonwealth production (i.e., with Bahrein and Kuwait excluded).

The production of crude petroleum in Trinidad from the commencement in 1908 to the end of 1950 was about 59,000,000 tons. For the last decade production of crude has been around 3,000,000 tons annually, 1940 with 3,175,268 tons being the year of highest output. Since the commencement of oil refining in Trinidad some

COAL PRODUCTION

(Long tons)

	1938	1945	1946	1947	1948	1949	1950
Nigeria	362,516	512,552	607,652	579,354	607,757	550,517	583,238
Brunei	464	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Malaya	477,908	226,702	224,674	226,301	375,460	386,898	415,777
Total Colonial Territories ..	840,888	739,254	832,326	805,655	983,217	937,415	999,015

(*a*) Information not available.

52,000,000 tons of crude have been treated ; most of this tonnage consisted of domestic production, but in recent years an increasing amount of crude has been imported into Trinidad for refining. Trinidad possesses the largest oil refinery in the British Commonwealth outside the U.K.

Crude oil production in the British Borneo territories commenced in the Miri field, Sarawak, the output from which grew from 5,000 tons in 1912 to a peak of 748,000 tons in 1929, and thereafter declined steadily to 207,000 tons in 1938. Meanwhile, the Seria oilfield in Brunei, which commenced production in 1932, had very rapidly increased its output to 855,000 tons in 1940. Both oilfields suffered considerable damage during the ensuing Japanese occupation when the estimated enemy production was 1,594,000 tons and loss by fire 620,000 tons, a total depletion of reserves of 2,214,000 long tons. Since the liberation of Brunei the oilfield has already made a spectacular showing, as will be seen from the accompanying statistics. The outstanding fact is that the monthly output of the Seria field, after running a close second to that of Trinidad in the early part of 1948, actually took the lead later in the year and thus for the first time Brunei became the largest producer of petroleum in the Colonial territories, a position that Trinidad had held for many years. The Seria field, in particular, is believed to be capable of a further substantial increase in output. Towards the end of 1949 the daily production rate rose to about 80,000 barrels compared with about 55,000 for Trinidad. More than half of the output of crude from the two oilfields is refined locally at Lutong, near Miri, where natural gas is employed as fuel. The Anglo-Saxon Petroleum Co., Ltd., has commenced new exploration work in all three British territories in Borneo.

Barbados has been a small producer of oil since the latter part of last century. More serious attempts to obtain oil began with the operations of the British Union Oil Co. in 1919. This company drilled a considerable number of wells and exploratory boreholes with disappointing results. Its total expenditure on geological surveys, drilling and production has been nearly £800,000 which is many times the value of the oil it produced, viz., 19,571 tons from 1920 to the end of 1948. The company's chief geological adviser concluded in 1940 that it was useless to seek for further sporadic accumulations in the present producing strata, and that, unless a prolific source of oil could be found by really deep drilling (10,000-12,000 feet), there was no inducement to continue prospecting for oil in Barbados. The war prevented this deeper exploration, but recently the Barbados Government has granted a licence to the Gulf Oil Corporation of the U.S.A. for this purpose. The Gulf Oil Corporation has also been granted oil exploration rights in British Honduras.

In addition to oil exploration mentioned above in connection with producing countries, the search for oil is proceeding in the Bahamas, Nigeria, British Somaliland, Uganda and the Aden Protectorate. Work has also been carried out in Kenya, Tanganyika, Cyprus, the Gold Coast and British Guiana.

Asphalt

Trinidad is the only Colonial and the leading world producer of natural asphalt, which is obtained from the famous Pitch Lake of La Brea. Fresh pitch continually wells up to take the place of that extracted and, provided that the extraction rate is not excessive, the level of the pitch lake remains more or less constant. Production for the 10 years 1939-1948 averaged 89,280 tons annually, but this period includes the somewhat lower rate of output during the war years. The 1950 production of 132,846 tons indicates a return to pre-war levels, but no great expansion of the natural asphalt industry is anticipated, owing to competition from petroleum asphalts. An annual output of 200,000 tons is believed to be possible. Trinidad asphalt forms the basis of a very wide range of bituminous products.

Manjak

The only Colonial territory at present known to possess deposits of manjak is Barbados. Mining operations commenced in 1895 and continued until 1919, at least seven mines being developed. Production during the best years was of the order of 1,000 tons. Two grades were marketed : a lower grade which went mainly to the United States, and a higher grade which was formerly well known in the United Kingdom. The place of manjak in industry has been very largely taken by gilsonite from the United States. The cessation of mining of manjak in Barbados does not appear to have been due to exhaustion of the veins, and production was recommenced on a very small scale during the war, but only from surface workings, mining timber not being available.

Grahamite was formerly mined in Trinidad and marketed under the name of manjak.

CRUDE PETROLEUM PRODUCTION (Excluding Natural Gasoline)
(Long tons)

	1938	1945	1946	1947	1948	1949	1950
Barbados	224	248	183	44	11	24	—
Trinidad	2,533,886	3,000,000	2,877,400	2,919,000	2,872,493	2,945,246	2,947,489
Brunei	695,904	11,200	285,496	1,700,231	2,645,412	3,337,027	4,051,010
Sarawak	199,584	(*a*)	1,000	23,964	46,597	56,752	56,601
Total Colonial Territories ..	3,429,598	3,011,448	3,164,079	4,643,239	5,564,513	6,339,049	7,055,100
Total British Commonwealth (*b*)	6,910,000	5,635,000	6,481,000	10,183,000	15,387,000	23,275,000	31,395,000
Total World	275,000,000	256,185,000	377,436,000	416,527,000	469,907,000	467,225,000	520,535,000

(*a*) Not available. (*b*) Including Bahrein Islands and Kuwait.

NATURAL GAS PRODUCTION
(million cu. ft.)

	1938	1945	1946	1947	1948	1949	1950
Brunei	3,195	128	1,205	8,933	19,837	20,483	26,617
Trinidad	(*a*)	27,503	27,170	29,617	30,697	32,287	32,312

(*a*) Not available.

NATURAL ASPHALT PRODUCTION
(Long tons)

	1938	1945	1946	1947	1948	1949	1950
Barbados manjak (Exports) ..	57	9	—	—	—	—	—
Trinidad	127,859	63,118	93,851	87,346	128,993	145,160	132,846

IV. OTHER NON-METALLIC MINERALS

Abrasives

Corundum has been worked in times of exceptional demand in Nyasaland and Swaziland for export and in Tanganyika for local use. Corundum is also known to occur in Malaya, Sierra Leone and Uganda.

Staurolite is obtained as a by-product in diamond washing in the Gold Coast, and the material is exported to the United Kingdom for use in making non-slip pavement.

Pumice has been produced to an unknown extent in Cyprus for export. It has also been produced in small amount for local use from the considerable reserves in Kenya.

Artificial alumina for abrasive purposes is manufactured in large quantities from *bauxite* some of which is of Colonial origin. In no case is this processing (which needs cheap electric power) carried out in the producing territory concerned.

Garnet, *tourmaline*, *topaz* and other abrasives occur in various territories in some quantity, but are not as yet actually utilised. Raw materials suitable for making various miscellaneous abrasives are known to occur in various Colonial territories, but many of these abrasives are normally only manufactured in highly industrialised countries.

Diamonds (industrial) and *diatomite* are also used as abrasives.

Asbestos

Of the territories here considered Swaziland and Cyprus are the only ones in which asbestos deposits of importance are known to occur. In both cases the fibre is chrysotile, but while Swaziland produces fibres of spinning or shingle grades and is now the fourth most important producer of this type of fibre in the world, Cyprus produces only short fibre suitable for asbestos cement goods, and its production, although of increasing importance, is comparatively small.

In Swaziland, the whole output comes from the Havelock mine of New Amianthus Mines Ltd., which is situated in the north-west of the territory, where the chrysotile deposits are extensions of those of the eastern Transvaal. Production commenced in June, 1939, and Swaziland is now one of the leading world producers. Most of the fibre is obtained by underground working, and it is estimated that at the present rate of production the mine has a life of at least 30 years. This mine is a considerable asset to the territory, accounting as it does for a large percentage of the income tax and nearly all the base metal royalty receipts.

ASBESTOS PRODUCTION
(Long tons)

	1938	1945	1946	1947	1948	1949	1950
Kenya	(*a*)	385	162	573	502	705	225
Uganda	52	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Swaziland	—	20,907	28,695	24,959	28,956	30,328	29,167
Cyprus	9,532	3,132	4,077	6,687	7,978	12,358	14,752
Total Colonial Territories ..	9,584	24,424	32,934	32,219	37,436	43,391	44,144

(*a*) Information not available.

In Cyprus, chrysotile asbestos has been produced near Amiandos in the Troodos Mountains since 1907. At the beginning of 1948 the mines were taken over by Cyprus Asbestos Mines Ltd., a concern controlled by companies operating in the United Kingdom, the Irish Republic, Denmark and Sweden which share the exported product. The fibres are always short, ranging up to about ½ inch, and mining is only possible during the dry season which lasts normally from April to September.

Minor occurrences of asbestos are known in Kenya, Nyasaland, Tanganyika, Uganda, Bechuanaland and elsewhere, but so far the quality and quantity have been poor, although in some cases the fibre has been used locally.

Barytes

Occurrences of barytes have been recorded in the Gold Coast, Tanganyika, Kenya, Uganda and Antigua. Production is at present confined to Swaziland, and although it is as yet only about 100 to 200 tons a year, the development of these deposits is in hand and estimated reserves are fairly large. Production is also contemplated in Kenya. During the war a few hundred tons were produced and exported from Antigua.

Beryl

With the development of atomic energy during the Second World War came an increased demand for beryl, resulting in small spasmodic production in a number of Colonial territories, namely, Nigeria, Kenya, Tanganyika, Uganda and British Somaliland. This mineral, commonly found in pegmatites, is of sporadic occurrence and low concentration, and it is rarely economic to work a pegmatite for beryl alone; beryl is, in fact, usually obtained as a by-product in the mining of such other minerals as mica, felspar and tantalite. No estimate of reserves is, therefore, possible. Uganda produced 22½ tons in 1947, 44 tons in 1948, 16 tons in 1949 and 43 tons in 1950.

Bleaching Clays, Bentonites, Fuller's Earth, etc.

Clays with potentialities for use as oil-refining, bleaching and foundry bonding materials, etc., are known to occur in Cyprus, Jamaica, Kenya, Tanganyika, etc., but in no instance are they of major economic importance.

China Clay

Hong Kong possesses important deposits of china clay and ball clay, but only since 1947 has there been any considerable production recorded. The output in 1948, including other clays, was 3,874 tons. There are many workings and much of the clay is exported to Japan, but some is used locally in ceramics, toilet preparations and rubber manufacture. For many years Malaya has produced a few hundred tons of china clay annually and the output in 1950 was 1,435 tons. It is mainly used locally for ceramic purposes. China clay and other white-burning clays are also produced in Tanganyika and Kenya, and deposits are known in British Guiana and Jamaica.

Diatomite

The deposits of diatomite in the Rift Valley in East Africa are among the most extensive in the world, but production is confined to Kenya.

Recent production is as follows :—

	1945	1946	1947	1948	1949	1950
Long tons ..	444	508	724	1,019	2,189	2,572

Many qualities of diatomite are used in industry and the highest grade, which is used as a filter aid, can only be produced from raw material with certain special inherent properties by processes of intensive refining. This high-grade diatomite has hitherto originated largely in dollar countries, and investigations are being made to determine the possibilities of Kenya diatomite after beneficiation for filtration purposes.

It is already established that Kenya diatomite is well suited for certain filtration processes, and for use as an insulating medium in refractories, and as a filler and mild abrasive.

Deposits of possible economic interest exist on the Uganda-Tanganyika border and large unworked deposits are known to occur in parts of Nigeria and in Bechuanaland.

The well-known siliceous earth of Barbados is not a diatomite, but it possesses properties which enable it to be used as a substitute in certain uses of diatomite, notably in heat insulation. In 1938, 10 tons of this earth were produced, but the extent of subsequent output is unknown.

Graphite

Graphite occurs in several of the Colonial territories, but none of the deposits has yet been developed successfully. The only recorded production in recent years was a trial quantity of 13 tons in Kenya in 1944-45, and an average annual production of 160 tons in Malaya during the Japanese occupation, when a low grade deposit in Trengganu was worked. The possibility has often been considered of producing in East Africa flake graphite of crucible grade, comparable with the type of which Madagascar is the dominant source, and the most promising deposits in Kenya and Tanganyika are now being reinvestigated with this in view. Although the Madagascan material sets a very high standard of quality, its periodic scarcity and rising price make the present prospects for successful production in East Africa much more favourable than hitherto.

Gypsum

A number of Colonial territories have large deposits of gypsum. Interest in this mineral in regions remote from gypsum plaster and plaster-board industries, but with local gypsum deposits, has recently been awakened by the introduction of novel methods of building construction based on moulded plaster units.

At the present time gypsum is being produced in Cyprus, Jamaica and Kenya. Cyprus is a gypsum producer of long standing, both crude and calcined material being exported. Production in Kenya commenced in the war years, the material being consumed locally in the manufacture of plaster of paris, chalks and cements. Jamaica is the latest entry to the list of Colonial gypsum producers and exporters. All these three territories have very large reserves of the mineral ; other Colonial territories with deposits are British Somaliland, Tanganyika, Uganda and Nyasaland.

The West African territories and Malaya are notably deficient in gypsum. Jamaica appears to be the main source of gypsum in the Caribbean region. British Somaliland possesses what are possibly the world's largest deposits of the allied mineral, anhydrite.

Recorded production of gypsum is as follows (long tons) :—

GYPSUM PRODUCTION
(long tons)

	1938	1945	1946	1947	1948	1949	1950
Kenya	—	156	500	559	1,000	178	—
Jamaica	—	—	—	—	—	12,000	23,000
Cyprus (estimated)	12,000	2,600	15,000	8,000	20,000	26,000	65,000

Kyanite, Sillimanite, etc.

These minerals, which are used in making refractories (linings for plant operating at high temperatures) and electrical porcelain, are in good demand. The rise of Kenya to the leading place among world producers is one of the outstanding developments in Colonial non-metallic mineral production that has taken place within recent years. Hitherto the output has come largely from a single producer, but other properties in the same area are also being investigated and brought into production. The product is exported mainly to the United States and the United Kingdom and the output since the commencement of production has been as follows :—

KYANITE: PRODUCTION IN KENYA

	1943	1944	1945	1946	1947	1948	1949	1950
Long tons ..	287	607	444	2,380	14,447	14,600	23,263	10,195
Value, £ ..	1,000	2,124	1,624	9,482	54,224	61,741	128,015	93,370

Important deposits of kyanite are known to occur in Nyasaland, but they are too remote from the seaboard to make them workable at present. Sillimanite occurs in some abundance near the railway in the Oyo Province in Nigeria. In the Gold Coast large deposits of andalusite are known in Ashanti, and of kyanite in the Northern Territories. High quality kyanite of unknown extent occurs in Bechuanaland.

Magnesite

Magnesite of potential or actual economic importance occurs in Cyprus, Kenya and Tanganyika. A number of attempts have been made to work deposits at Akamas in Cyprus but without any great success, although there has been a small production since 1944. Several occurrences have been recorded in Tanganyika, the most important being at Mwahanza, but no production has yet been recorded. A small quantity of magnesite has been produced recently in Kenya where there are a number of occurrences and where the possibility of future development is under consideration.

Mica

The production of mica in the Colonial territories is not large compared with the world total, but the output of sheet mica particularly in Tanganyika makes a useful contribution to total British Commonwealth supplies of this important mineral.

Tanganyika has long been the chief Colonial source of the mineral, the output during the period 1922-44 alone being valued at over £350,000. Sheet mica of the highest quality is produced and the demand for it during the war was such that the industry expanded very considerably from 21·8 tons worth £6,450 in 1938 to 125·48 tons worth £95,008 in 1944. Recently exports have been at the rate of about 70 tons a year. A mica sorting depot, long needed in the territory, has been established and is now producing 8,000-9,000 lbs. of mica a month. In Northern Rhodesia the output of sheet mica was progressively increased during the war years at the Sachenga, Phœnix and Siazela properties. Production, which had been continuous since 1932, ceased in 1947, but under the right conditions there are believed to be attractive prospects for mica operation in the Colony. Good quality mica occurs in Nyasaland where at one time 100 tons valued at £11,444 were produced. There was a revival of interest during the war, but output was only on an extremely small scale. In Malaya mica was produced during the war, but it is of very low grade and is not normally marketable. There has been small and sporadic production of mica in Kenya and Uganda and the mineral has also been recorded from a number of other territories including British Guiana, the Gold Coast, Nigeria and British Somaliland.

Phosphates

Ocean Island in the Gilbert and Ellice Islands Colony, and Christmas Island, a dependency of Singapore, are important producers of rock phosphate. The other Colonial producers are of minor importance, as will be seen from the following statistics of output :—

PRODUCTION OF PHOSPHATE ROCK AND PHOSPHATIC GUANO
(long tons)

	1938	1945	1946	1947	1948	1949	1950
Ocean Island	299,550	—	29,200(*b*)	209,100(*b*)	124,850(*b*)	260,900(*b*)	247,250(*b*)
Christmas Island	159,859(*b*)	6,000	32,750	104,451	174,765	243,475	315,361
Seychelles (*a*)	21,360	6,867	20,726	14,061	21,237	13,727	9,691
Uganda	—	8,511	7,099	6,495	—	—	—
Tanganyika Territory ..	104	9	275	217	309	155	460

(*a*) Exports of phosphatic guano. (*b*) Exports.

About four-fifths of the world output of phosphate rock is produced in the United States and North Africa, and the only important British Commonwealth sources are Nauru Island, Ocean Island and Christmas Island. The phosphate rock which caps these three oceanic coral islands is worked by the British Phosphate Commissioners on behalf of the Australian and New Zealand Governments and provides almost the whole of the requirements of phosphatic fertilisers of these countries. The maximum annual outputs achieved have been Nauru 1,053,450 tons in 1950 and Ocean Island 315,000 tons in 1939, and Christmas Island 315,361 tons in 1950. Similar deposits are worked on other Pacific islands (Makatea, Angaur, etc.), but both output and reserves are of much less importance.

To the end of 1950 Christmas Island had exported over 5 million tons of phosphate rock and Ocean Island about 7¾ million tons since working commenced in 1899 and 1900 respectively. Reserves appear to be adequate for many years to come. The rock is of excellent quality, containing 85 per cent tribasic phosphate, and working costs are low. Until 1941 Christmas Island exported largely to Japan, and moderate tonnages were exported to Europe, their high quality compensating for the long journey. Mining was suspended during the war with Japan, the installations having been destroyed in 1942, but recommenced in 1946 and regained the pre-war level of production in 1949.

Phosphatic guano has been dug in the Seychelles for many years and to the end of 1950 a total of about 600,000 tons had been exported. The reserves are now nearly exhausted and the Government has long deprecated the continued export of guano which has become detrimental to local cultivation. In 1948 the Government regained possession of the leases of the principal deposits and intends to allow the remaining reserves to be used only for domestic requirements. The small output of phosphates recorded in Tanganyika consists of bat guano from caves in the Mbeya district which is used locally.

Large deposits of apatite in the Tororo area of Uganda have been under investigation since 1942 and promise to be of great value in providing phosphatic fertilisers for the East African territories, where imported fertilisers are too expensive for use on a large scale. The rock is unsuitable for the manufacture of superphosphates, but research is in progress to determine the best means of utilising it. It was quarried and after being finely ground was applied to various crops in Kenya in the years 1944-47, but this has been discontinued pending further research.

Salt

Although salt is used extensively as an industrial raw material, it is also an essential constituent of human and animal diet. It is one of the commonest of natural minerals and is worked in practically every country. Aden, with 256,000 tons in 1950, is by far the largest Colonial producer.

In Aden, the Turks and Caicos Islands and the Bahamas, salt is produced by the solar evaporation of sea-water and is largely exported. It is the principal export from the Turks and Caicos Islands, where the industry has recently been reorganised with Government participation. Small quantities of salt are also exported from Tanganyika where considerable quantities are obtained from salt lakes and brine springs.

Sodium Carbonate (Soda Ash)

The export of soda ash is a considerable item in the economy of Kenya. The trona (naturally occurring sodium carbonate) of Lake Magadi, Kenya, is the only workable occurrence of its kind in the Colonial territories, and has been worked since 1919 by the Magadi Soda Co. Ltd., now a subsidiary of Imperial Chemical Industries Ltd. At the lakeside factory, connected by branch line with the East African Railways, calcined material is produced containing on an average between 97 and 98 per cent of sodium carbonate. During later years there has also been a considerable output of common salt, sodium bicarbonate, and washing soda at the factory, and during the war years sodium fluoride (another constituent of the lake salts) was also extracted. The output of soda in Kenya is shown below.

Sodium Carbonate Production : Kenya

	1938	1945	1946	1947	1948	1949	1950
Long tons ..	29,246	72,582	84,633	91,368	121,250	72,246	103,563

Sulphur and Pyrites

Although occurrences of sulphur have been recorded in a number of territories and indeed unsuccessful attempts have been made to work this mineral in the New Hebrides (Vanua Lava), and the Windward Islands (Dominica and St. Lucia), none appears to be promising and no production has been recorded.

On the other hand, Cyprus has been for a number of years an important producer of cupreous pyrites, an American company being the chief producer, and efforts are at present being made to increase production there. For further information, see above, under " Copper." Pyrites also occurs in Kenya where there has been a small production for the local manufacture of sulphuric acid, and in Tanganyika.

Talc

No important deposits of high-grade talc are yet known to occur in Colonial territories, but the mineral has been worked on a small scale for local use in Tanganyika and Kenya.

The Kisii soapstone of Kenya is not a true talc, but it possesses properties which enable it to be used for similar purposes. Efforts are being made to market it overseas both in the massive form and as a powder. The occurrence of talc is known in a number of Colonial territories, notably in Uganda, Nigeria and Bechuanaland.

Vermiculite

This mineral, which is used chiefly for heat and sound insulation and in making light-weight concrete, occurs in Kenya, Tanganyika, Uganda, Gold Coast, Nigeria, Bechuanaland and Swaziland. Deposits suitable for exploitation for local uses are known in East Africa and their economic possibilities for this purpose as well as for export have been under investigation. Production so far has only been on a scale sufficient for trial shipments.

Lack of substantial local markets, transportation costs to overseas markets and competition from the large, high-grade deposits in South Africa have been the chief factors militating against the development of Colonial sources of vermiculite.

OIL SEEDS AND VEGETABLE OILS

Vegetable oils (excluding essential oils) are obtained from the seeds, nuts and fruits of a number of trees and plants. The oil is extracted either by crushing or by use of solvents. Vegetable oils are used, first, for food, in the manufacture of margarine, etc., and as cooking oil; secondly, for manufacture of soap; thirdly, for manufacture of paints, varnishes and linoleum and for other industrial purposes; and fourthly, particularly in producing areas, as illuminants. After the oil has been extracted, cake or meal remains; this is usually valuable as a feeding-stuff for animals. Cake is also often used as a fertiliser, and in some areas certain cakes, for instance groundnut and cotton-seed cake, are occasionally used as human food. Since the proportionate yield of oil and cake varies considerably between different seeds, the domestic market for the cake in the oil-manufacturing country may be a secondary but by no means unimportant factor in the manufacturers' choice of an oil seed at different times and in different countries.

While industry often loosely classifies oils as being drying, semi-drying or non-drying, these classes merge imperceptibly into one another. Their uses are governed by their chemical composition which is often rather similar, so that it is sometimes difficult to justify an arbitrary boundary as between, say, drying oils and semi-drying oils. As a consequence of this overlapping, those industries which are traditionally based on the use of drying oils such as linseed, namely, the manufacture of paints, certain printing inks and linoleum, also use considerable quantities of semi-drying oils such as soya, although in the United Kingdom soya itself is not at present being used. The drying tendency of all the oils used is, in practice, often considerably modified by the processes of manufacture. Similarly, although the typical edible oils, e.g., groundnut and palm oil, are non-drying oils, many semi-drying oils are of importance in the manufacture of edible products such as margarine and shortening.

PRODUCTION AND EXPORTS OF MAIN EXPORT OILSEED CROPS IN PRINCIPAL PRODUCING COUNTRIES

(thousand tons; oil equivalent)

	Production			Exports		
	Average 1934-38	1948	1949	Average 1934-38	1948	1949
Field Crops						
Groundnut	2,492	2,916	2,908	802	478	496
Cottonseed	2,203	2,025	2,114	177	62	103
Soya Bean	1,648	2,241	1,973	399	68(*a*)	258(*a*)
Rapeseed	1,325	1,621	1,657	27	10	6
Linseed	1,119	1,240	1,077	622	213	232
Sesame	676	722	704	62	15	11
Sunflower	608	931	1,081	15	56	16
Castor	180	203	185	87	95	72
Tree Crops						
Coconut	1,250	1,144	1,203	997	910	928
Olive	878	633	915	144	60	30
Palm	666	641	735	448	363	472
Palm kernel	374	337	373	318	301	347
Tung	120	128	119	78	75	58
Total	13,539	14,782	15,044	4,176	2,706	3,029

(*a*) Excluding exports from Manchuria.

All vegetable oils do not fall into the general pattern outlined above. There are some, e.g., tung oil and castor oil, which have distinctive properties which put them in a class of their own. Castor oil is also a good example of an oil of which fields of usefulness have been extended through preliminary processing.

Vegetable oils are, for some purposes and within certain limits, interchangeable not only with each other but also with animal fats such as butter, lard and tallow, and with marine oils, most of all whale oil. This interchangeability has been emphasised by wartime experience, and still influences policy in countries in which restrictions on trade in oils and fats have not yet been entirely eliminated. The market price of oilseeds and vegetable oils is much influenced by the fact that on the whole no one oil is alone suitable for any particular industrial purpose. This wide range of raw materials which can be used for the same industrial purposes is an important factor in the market of oil seeds and vegetable oils. Although the varieties of trees and plants from which vegetable oils are obtained are very numerous, international trade on a large scale is confined to a comparatively small number of oilseeds and their oils, the most important of which are groundnuts, copra (from coconuts), oil-palm products, cotton seed, linseed and soya beans.

Only a small proportion of the total world production of oilseeds and vegetable oils enters the world markets. In some of the largest producing countries acreage and yields are not accurately estimated, so that reliable figures for production are not available. Nor is it always possible to estimate the quantity of oils and seeds used for food in the producing countries. Comparisons are, therefore, usually based on export figures rather than production figures. The above table compiled from Commonwealth Economic Committee publication " Vegetable Oils and Oilseeds " (1950) gives some indication of the relative importance of the principal vegetable oils and fats. Production figures are in many cases estimates.

These figures suggest that while production of oilseeds and vegetable oils in 1948 and 1949 probably slightly surpassed the pre-war average, exports were substantially lower. Factors which explain this divergent development include greater consumption in the producing areas, insufficient facilities for transport, and currency difficulties.

The bulk of exports are made in the form of seed; the seed is crushed in the importing country which usually requires the residual cake for feeding animals. Nevertheless the quantities exported in the form of oil are considerable and are likely to increase as the milling industry grows in the producing countries.

Oil bearing crops are grown widely throughout the Colonial territories, both for local consumption and for export. The major areas producing oilseeds for export are West Africa, the Federation of Malaya, Fiji and the Western Pacific Territories.

GROUNDNUTS

The groundnut is a small annual leguminous plant which can be grown on the lighter soils in almost any tropical or sub-tropical country. Since the shell, which represents about a quarter by weight of the nut, is commercially of negligible value, the nuts are usually decorticated before being shipped, or if the distance to the port is fairly long are decorticated where they are grown. Groundnuts, apart from being cultivated for their oil, are used in many producing countries as a foodstuff. Although mechanised aids to agriculture have been extensively applied to groundnuts in the United States, it is only recently that they have been introduced into Africa. Attempts at large-scale mechanised production of groundnuts were made after the war in Tanganyika by the Overseas Food Corporation, but they did not prove successful. In West Africa, where peasant production has reached very large proportions indeed, smaller pilot schemes are being started.

Groundnut oil has for many years been appreciated as a salad oil, but, after hydrogenation had made it possible to raise its melting point, it became in the inter-war period the vegetable oil most used in the manufacture of margarine. In 1948 groundnuts and groundnut oil together represented in oil content 27 per cent of all vegetable oils entering world trade. The principal producing countries are India, China, French West Africa, the United States and Nigeria. Of these only French West Africa and Nigeria at present export large quantities. In India, which with an export of between 850,000 tons and 1,000,000 tons was the principal source of groundnuts in pre-war years, home consumption has increased to such a degree that exports since the war have been put on a quota basis and represent only a fraction of their former volume. A return to the pre-war level of exports appears to be unlikely without a considerable increase in production. Exports from China have shrunk even more heavily, while the United States has always consumed the bulk of its crop. Owing to the development of the local crushing industry, exports of nuts from French West Africa have also remained below pre-war level and all the nuts available for export have been allocated either to France or French North Africa. Nigeria, on the other hand, which is the main source of supply in the Colonial territories, has increased its exports compared with pre-war years.

In Nigeria, purchases for export in the 1947-48 and 1948-49 seasons reached nearly 330,000 tons, compared with the pre-war average of 231,000 tons. There have been difficulties in moving these very large annual crops; and the quantities exported in the years 1947 and 1948 fell short of the quantities produced. However, production in the 1949-50 season fell heavily owing to drought, and the export of nuts was accelerated with the arrival of new equipment for the railway, so that the stock in 1950 was reduced to normal proportions. The railway facilities are now believed to be adequate for handling a normal crop. The results of recent experiments by the Nigerian Department of Agriculture on the manuring of groundnuts with superphosphate have been very promising.

Exports from the Gambia have been equal to and, in some years, above the pre-war level of about 56,000 tons (undecorticated) a year.

Both in Nigeria and in the Gambia groundnuts have hitherto been a peasant crop. Proposals were made, however, in the Report of the West African Oilseeds Mission in 1948* for the introduction of semi-mechanised methods for the cultivation in rotation of various crops, including groundnuts and sunflowers. Two large-scale experiments have been started for providing technical and economic data relating to the conditions under which mechanical aids are appropriate to West African agriculture. The Niger Agricultural Projects Ltd., set up jointly by the Government of Nigeria and the Colonial Development Corporation, envisages cultivation on a crop-sharing basis by Africans who have been selected by the local authorities. The area involved in the initial stage is more than 36,000 acres and oilseeds (groundnuts, sunflowers and soya beans) will be grown on one-third of the land in rotation. In the Gold Coast the locally financed Agricultural Development Corporation has also undertaken a pilot scheme to test the extent to which mechanisation can be applied to land clearance, and the cultivation of crops, including oilseeds.

Groundnuts are also grown, mainly for local consumption, in the East and Central African territories; production in Uganda is reported to exceed 100,000 tons a year. Exports from Uganda, Tanganyika and Nyasaland have in the past been very small and irregular. Developments early in 1951 in the affairs of the Overseas Food Corporation have resulted in a considerable scaling down and change of emphasis in the original East African Groundnuts Scheme. The Corporation's production of groundnuts in Tanganyika in consequence is likely to be of the order of 10,000 tons a year for some years to come, of which a proportion will be retained for seeding and rations.

OIL PALM PRODUCE

The oil palm is the source of two different kinds of oils, palm oil and palm kernel oil. Palm oil is extracted in the producing country from the pericarp of the fruit. The nuts are then cracked to obtain the kernels and the kernels are usually shipped to Europe where they are crushed to obtain palm kernel oil.

In West Africa, where the oil palm is indigenous, palm oil is used in considerable quantities as a foodstuff, as an illuminant and for various other purposes. Outside West Africa it is mainly used in the manufacture of soap and, on a more limited scale, in the tinplate industry; in future years its use for soap may be affected by the increasing use of soapless detergents. Only the highest grades of palm oil of a low free fatty acid content can be used for edible purposes.

The quantity of free fatty acid present provides one of the chief indications of quality. The higher it is, the lower the quality. Where the oil is to be used for edible purposes, the free acid has to be removed by a refining process. In this process a quantity of crude oil is removed along with the acid; consequently the amount that is lost to edible use may be twice the amount of the acid content. The free acid and the crude oil that has been removed with it can subsequently be used for soap-making; but even for this purpose a high free fatty acid content is undesirable, since it has an adverse effect on the production of glycerine which can be recovered from the residue. The importance of glycerine as a by-product may, however, diminish with the increasing production in the United States of synthetic glycerine, which can be supplied more cheaply than natural glycerine.

The development of free fatty acid can be retarded if the fruit can be cut while ripe but before becoming over-ripe, if the interval between cutting and pressing can be reduced, and if the fruit is sterilised effectively and at the earliest possible moment. The traditional methods in West Africa are defective in some or all of these respects and in addition lead to the loss of a large percentage of the recoverable oil.

The cultivated varieties of oil palm on the whole produce fruits with a larger pericarp and smaller nut, so that the proportion of palm oil to kernels yielded is higher. The oil content of the whole fruit varies very widely because of the wide variation in the comparative sizes of fruits and nuts. The oil content of the kernels ranges from 45 per cent to 55 per cent, and a very high proportion of this can be recovered in efficient modern mills. The rate of recovery of palm oil from the fruit shows great differences according to the method used. The following table, for instance, is based on results obtained from experiments conducted in British West Africa.

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* Colonial No. 224

PALM OIL: EXTRACTION RATES

Method of Extraction	*Extraction Rate as percentage of total oil content*	*Free Fatty Acid Content* %
Peasant Methods	55	3—35
Hand presses	65	3—25
Pioneer mills	85	3— 6
Factories	93	under 3

Oil palm products come almost entirely from two areas, West Africa and the Belgian Congo, and South-East Asia. It is the fruit of the wild palm from which the bulk of the palm oil and kernels produced in British, French and Portuguese territories in West Africa is obtained, although there are also some plantations. In the Belgian Congo, however, while the wild palm is also exploited, production is mainly from plantations. In Malaya and Indonesia the industry which has been developed since 1918 is wholly on plantation lines.

For many years Nigeria had been the leading exporter both of palm oil and of palm kernels, but in the years prior to the war the Netherlands Indies became the largest exporter of palm oil ; for instance in 1938 Sumatra exported 217,226 tons of palm oil against Nigeria's 110,244 tons. During the war many of the plantations in the Far East were devastated, together with the factories. Recovery was almost complete in Malaya by 1948 but Indonesian exports were still much lower. In 1950 exports from Nigeria amounted to 173,000 tons, from the Belgian Congo 130,000 tons, from Malaya 51,000 tons and from Sumatra 95,000.

Nigeria remains the largest single source of palm kernels as before the war. Sierra Leone also exports kernels in large quantities, and smaller quantities are exported from Malaya and the Gold Coast. Outside the Colonies the main sources of supply are the Belgian Congo, French West and Equatorial Africa, and Indonesia. Compared with the exports of palm oil the exports of kernels from Malaya and Indonesia are small. As explained above, the kernel forms a much smaller part of the cultivated palm fruit than of the wild fruit and necessarily the production of kernels is proportionately smaller.

Figures showing Colonial exports of oil palm produce appear in the table on page 153.

Measures are being taken in West Africa to increase the efficiency with which the fruit is processed by the introduction of hand presses and small mechanical (Pioneer) mills and by grading all oil sold for export. It is hoped that the Pioneer Mill will prove to be suitable for use under a wide variety of conditions in West Africa. The initial cost of purchase and erection is not great, maintenance expenses are not high, and the quantity of fruit required to keep a mill running economically is not so large as to require transport over excessive distances. Initially the mills are being erected and run by Government but it is intended that they should be handed over, once they are well established in running order, to African enterprise.

The grading of palm oil purchased for export by the West African Produce Control Board over the period 1942-48 led to a marked improvement in the quality of the oil. This policy is being continued by the Nigeria Oil Palm Produce Marketing Board, so that the producer of Grade I oil in 1950 received £16 10s. per ton more than the producer of Grade V oil—and Grade V oil has not been purchased by the Board since 1950.

Palm kernels form the largest single oilseed crop exported from the West African Colonies. To obtain the kernel the nut has to be cracked ; this is at present done largely with stones by the women and children, except, of course, where fruit is put through the Pioneer Mills.

COPRA AND COCONUT OIL

The coconut palm grows in most tropical countries, particularly in the coastal belts. Every part of the palm has its use, but the nut itself is of particular importance as a source of oil. The oil can be obtained by boiling the fresh meat of the nut, but the oil of commerce is obtained by crushing copra, the dried meat of the nut. The crushing industry has long been established in the principal producing countries, but the bulk of world exports has always been in the form of copra. Coconut oil, like palm oil and groundnut oil, is suitable for margarine making, and it is also an excellent raw material for soap manufacture.

The bulk of the copra and coconut oil entering world trade used to come from the Philippines and the Netherlands East Indies. In those countries the industry was completely disrupted by the war. Plantations were cut down or neglected, machinery was destroyed or damaged, and labour forces were dispersed or turned to alternative occupations. Nevertheless recovery in the Philippines has been rapid, and exports of copra have exceeded the pre-war level in spite of hurricane damage. Against this increase must be offset the reduced exports of coconut oil. Recovery in Indonesia has been less rapid as the following table shows.

COPRA AND COCONUT OIL EXPORTS, 1938, 1948 and 1950
(Thousand long tons : copra in oil equivalent)

		1938	1948	1950
Philippines :	Copra	212	394	504
	Oil	164	42	
Indonesia :	Copra	350	150	209
	Oil	20	—	

The most important suppliers of copra and other coconut products in the Colonial territories are Malaya, Fiji and the Western Pacific Dependencies, Zanzibar and the Seychelles. Small quantities are also exported from North Borneo, East Africa and the Gold Coast. Figures are given in the table on page 139. Post-war recovery has been on the whole satisfactory, but in the Western Pacific a general shortage of inter-island and ocean shipping has affected the export trade, and in the Solomon Islands there is in addition a serious shortage of labour.

In some territories the production of coconut oil, not only for local consumption but also for export, has developed considerably in recent years and copra exports have correspondingly declined.

There are two copra mills operating in Fiji. Exports of coconut oil in 1950 exceeded 10,000 tons while the export of copra fell to 21,350 tons compared with a pre-war average of 30,000 tons. A hurricane which struck the Colony in December, 1948 did much damage to coconut palms, and this together with increased oil milling reduced copra exports considerably.

The very considerable production of copra in the West Indies is used entirely for the production of coconut oil, soap, margarine, lard substitutes, etc., for consumption within the area. These industries, which had begun to develop before, were greatly assisted in their development by the war-time difficulties of providing shipping for the export of raw materials or the import of alternative supplies. An agreement was drawn up by a Conference of the principal exporting and importing territories which ensured that the raw material produced within the area should be made available for local processing and there have been no exports outside the area.

In Tanganyika, where copra was a minor export product before the war, most of the copra is now used for the manufacture of coconut oil and soap for the local market, and for an export trade in coconut oil, amounting to over 1,700 tons in 1950, to neighbouring territories.

An agreement has been drawn up under which the United Kingdom Ministry of Food will purchase the whole exportable surplus of copra and coconut oil from Fiji and the Western Pacific territories until the end of 1957. The price to be paid for copra will be the subject of annual negotiations, but cannot rise or fall in any one year by more than 10 per cent of the agreed price for the previous year. The price of oil will vary automatically in relation to the price of copra and cake. Under other agreements to purchase exportable surpluses from Zanzibar and the Seychelles for three years up to the end of 1951, difficulties have arisen over prices and the Seychelles contract lapsed in 1950.

COTTON SEED

In contrast to most other oil seeds cotton seed is itself a by-product of another industry, the ginning of raw cotton. The quantity available thus depends on the quantity of seed cotton grown and ginned. Nevertheless cotton seed is one of the principal sources of the world's supply of vegetable oil. Before the war large quantities of cotton seed were either used as fuel or wasted, partly because its relatively low value did not make transport to a market worthwhile, and partly because the producing country was not equipped with crushing apparatus. Since the war, however, machinery for expressing oil has been set up in most producing countries.

Cotton seed has an oil content of 15 to 25 per cent ; the oil is used mainly in the manufacture of salad oil, margarine and lard substitutes. The cake is also used by United Kingdom farmers as a feeding stuff for cattle and sheep.

The whole pattern of trade in cotton seed and cotton seed oil has changed since the war interrupted the normal demand and the normal flow of supplies. Before the war Egypt, the Anglo-Egyptian Sudan and Uganda were the main exporters of cotton seed, and the United Kingdom was by far the largest importer, taking 620,000 tons in 1938. Brazil, and to a smaller extent the United Kingdom, exported cotton seed oil, and the United States was the main importer. In 1948 Egypt converted almost the whole surplus available in Egypt and the Sudan to oil, while the United Kingdom only purchased 70,000 tons of cotton seed. Figures showing Colonial exports appear in the table on page 146.

SESAME SEED

Sesame seed, in West Africa known as benniseed, contains an edible oil which is for the greater part consumed in the producing countries. From the point of view of world trade it is of minor importance compared with the seeds considered previously, but sesame oil is used to a certain extent in the manufacture of margarine and cooking fat. The largest pre-war producers were China and India, which were also the main source of supply for the world market. Sesame seed is also widely produced in East and West Africa, where Nigeria and Tanganyika are the principal exporting countries and there is a small export from Sierra Leone.

SOYA BEANS

Soya beans are grown principally for food ; in the importing countries they are either ground into flour or processed to provide oil and cake. The oil is used mainly in the manufacture of compound lard and margarine, and to some extent in the paint and allied trades. All the imports of soya beans into the United Kingdom are used at present for flour production, but it is hoped to make some oil available for industrial users in the future.

The principal producers are China, Manchuria, Korea, Japan and the United States of America. Before the war there were large exports from China and Manchuria but today most soya beans entering the world market come from the United States. There is some production in Colonial territories, mainly in East and Central Africa. Exports from Uganda in 1949 reached 3,611 tons ; Nyasaland produces an exportable surplus amounting to 440 tons in 1948 and 179 tons in 1949. There are prospects that mechanised aids to agriculture will increase production in Tanganyika, Northern Rhodesia, Nigeria and the Gold Coast ; and exports may be expected in the future particularly from Tanganyika.

SUNFLOWER SEED

Sunflowers have been cultivated so far predominantly in the temperate zone, the principal producing areas being Russia, the Argentine, and the Balkan countries, but the plant will grow in a wide range of temperatures, and sunflowers are being grown with groundnuts and other crops in various parts of Africa. In many producing countries sunflower seed is used as a food, but the crop is mainly grown for the oil.

A disadvantage of sunflowers is that for technical reasons the seed should remain undecorticated until extraction. This means that, if extraction is to take place after export, the seed has to be shipped undecorticated. As about 45 per cent of the total weight of sunflower seeds is husk, freight charges are relatively high. The oil can be extracted from the undecorticated seed and the residue can then be used for an animal feeding-stuff, but the proportion in which undecorticated cake can be mixed with other feeds is very limited.

OLIVE OIL

The olive grows mainly in countries bordering on the Mediterranean. The most important producing countries before the war were Italy, Spain and Portugal ; there is a small production in Cyprus. The oil, a high-class commodity, is mainly used for human consumption, for the greater part in the producing countries ; the oil from the final crushings is used for soap making and in wool combing. Cheaper vegetable oils have replaced olive oil for certain purposes.

CASTOR SEED

Oil derived from castor seed is used mainly for medicinal purposes and as a lubricant, but its use after dehydration has, in recent years, become more and more general as a drying oil in conjunction with linseed oil. It is produced in many tropical and sub-tropical countries including the Colonial territories in East and West Africa. Since one of the difficulties of harvesting present varieties is the prickly nature of the seed, the economics of production would be greatly altered if high yielding strains giving non-shattering seeds could be produced. Both the castor seed and the meal made from it are highly poisonous. The stringent care which is necessary to keep castor seed away from other oilseeds, and the heavy losses when these precautions fail, make castor seed generally a difficult crop to handle.

LINSEED OIL

Linseed is the seed of the flax plant. There are several varieties, and generally speaking those which give a high yield of good seed produce poor fibre and those grown for fibre are not particularly suited for seed production. Linseed grown for fibre is, as a rule, pulled before the seed is fully ripe. Linseed is an annual crop and the amount produced fluctuates a good deal from year to year.

Linseed oil is the most important drying oil and is used mainly in the manufacture of paints, varnishes, linoleum, oilcloth and printing inks. It is only to a very limited extent interchangeable with other vegetable oils. Linseed cake, on the other hand, is used widely as a stock feed and as such is interchangeable with other oil cakes. The oil content of linseed varies between 30 and 40 per cent, the commercial extraction rate being 33 per cent.

The principal producers of linseed are the United States, the Argentine, Canada, India and the Soviet Union. There are very few areas in the Colonies suitable for the cultivation of linseed, which requires a temperate or subtropical climate with medium rainfall. Cyprus used to export small quantities before the war, but increased production would only be at the expense of grain production for the local market. There are believed to be limited possibilities in Kenya.

TUNG OIL

Tung oil is another drying oil. It is the product of the trees *Aleurites fordii* and *A. montana*. The oil is a special purpose oil and is seldom used alone, but it is of great value when blended with other oils, notably linseed oil.

The cake cannot be fed to livestock but has a certain value as manure. China has been by far the largest supplier of tung oil entering into world trade. Internal unrest and marketing and transport difficulties have resulted in wide fluctuations in supplies from this source, which in turn have produced related variations in prices from year to year. In 1950, oil exports from China were over 70,000 tons or at about the pre-war average. Tung oil is produced on a commercial scale in the United States and the Argentine and, on a very much smaller scale, in Brazil and in Nyasaland, which is the only producer and exporter in the Colonial Territories.

In Nyasaland plantations of tung trees, mostly *Aleurites montana*, were established on estates in the Southern Province before the war, and the total acreage under tung had reached 12,500 acres by 1948. A Tung Experimental Station has been established at Cholo where there is also a factory at which the oil is expressed and prepared for export. Furthermore, the Colonial Development Corporation is carrying out a large scale project in the Vipya Highlands in the Northern Province, a hitherto undeveloped area. The Corporation has taken over the development work already initiated by the Government and proposed clearing and planting with tung some 20,000 acres. It was expected that the area would be in production by 1960 and that maximum yield would be reached in about 1965. Three oil-extracting plants were to be set up. The scheme was revised in 1951, and initially only 6,000 acres are to be planted. It is hoped eventually to increase the output of the plantations in the Southern Province, which is now 200-300 tons a year, to over 2,000 tons, and to meet a large part of the United Kingdom's requirements of tung oil from Nyasaland.

The Nyasaland Tung Ordinance provides for the registration of tung growers for the licensing of buyers and of factories, for minimum prices for tung nuts and maximum processing charges, and for a single selling agency.

CANDLENUT OIL

The candlenut tree, *Aleurites moluccana* (*A. triloba*), bears nuts which yield another drying oil more like linseed oil than tung oil. The tree is a native of Malaysia, but appears suitable for growing in a wide range of climatic and soil conditions. At present it is exploited only in Fiji and Tonga. The nut is extremely hard and difficult to decorticate, but the oil has been expressed on a small scale in Fiji, and extracted also in Australia. The oil should have a future if supplies can be produced of a standard quality at prices which compare favourably with the price of linseed oil.

TETRACARPIDIUM CONOPHORUM

A very good drying oil, in some respects superior to linseed oil, can be obtained from the seed of the vine *Tetracarpidium Conophorum* which grows wild in Nigeria. Experiments are proceeding to discover whether the vine can be cultivated commercially there and elsewhere as a source of oil for the paint industry, and to provide solutions to a number of technical problems ; for technical reasons collection and processing of the seed of wild vines seems to be impracticable.

RUBBER SEED OIL

There are indications that rubber seed oil could be used as a substitute for linseed oil in certain processes, though in some only after fractionation. However, no strong commercial interest can be expected until trial collections of rubber seed on a large scale have shown production to be economic. Conditions in Malaya, in other respects the most suitable area, are at present too unsettled for these trials to be undertaken.

Note on Marketing of Oilseeds in West Africa

There have been important developments in the organisation for marketing West African oilseeds. During the war and post-war years up to 1949 the West African Produce Control Board was responsible for the purchase and export of oilseeds and palm oil. In the course of 1949 the functions of this Board were handed over to statutory Marketing Boards which were set up in the four territories on the lines of the Marketing Boards existing already in the Gold Coast and Nigeria for the sale of cocoa. Funds to the amount of £18 million, representing the accumulated surpluses from trading in oilseeds and palm oil by the West African Produce Control Board, were put at the disposal of the new Boards. In addition to the two Cocoa Marketing Boards and the Nigeria Cotton Marketing Board, which is responsible also for the marketing of cotton seed, the following Marketing Boards are now operating in West Africa and deal mainly in oilseeds or vegetable oils :—

Nigeria Oil Palm Produce Marketing Board.
Nigeria Groundnut Marketing Board.
Gold Coast Agricultural Produce Marketing Board.
Sierra Leone Produce Marketing Board.
The Gambia Oilseeds Marketing Board.

Each of the Boards sells the produce it exports to a Company floated in London for the purpose. The Boards are amply represented on the Boards of Directors of the Companies which in fact they own and control. The Companies share common premises and a single executive staff.

The establishment of these Boards makes it possible to isolate the farmer from day-to-day variations in market prices and to fix in advance the price he is to receive for his produce for a year or a season ; in addition it will be possible to provide farmers with a cushion against a future fall in the world price of oilseeds. The funds of the Boards are available to finance development and research in the areas of production. In Nigeria three Regional Production Development Boards have been established to administer funds allocated by the Marketing Boards for development. These Regional Boards are predominantly African and are closely associated with the regional legislatures.

Agreements have been reached by which practically the whole of the exportable surplus of the most important West African oilseeds will be sold to the Ministry of Food up till 1955, at prices closely related to average sterling values on the open market.

In Malaya, the other major area of production, the problems which are paramount in West Africa do not for the most part arise. Palms are cultivated in plantations, suitable varieties are used, and the oil is extracted in modern factories. The produce is sold commercially. Since the liberation, rehabilitation of estates and factories has been financially assisted by Government.

RUBBER

CULTIVATION

The crude or raw rubber of commerce is the coagulated latex of certain trees and plants. Latex is a milky fluid containing an elastic substance originally called *caoutchouc* but now generally known as "rubber." The rubber content of Hevea latex is usually about 30 per cent but on occasion reaches over 40 per cent. Although a number of species of trees and plants contain rubber latex, nearly the whole of the world production of rubber comes from the *Hevea brasiliensis*, and *Hevea* is almost the only rubber-yielding tree now cultivated. *Hevea* grows wild in tropical South America, but only a small proportion of world supplies is now obtained as a forest product from wild trees, the great bulk being obtained from plantations and small holdings chiefly in Malaya, Indonesia, Ceylon, Borneo, Viet Nam, Cambodia, Thailand, India and Burma. *Hevea* is also cultivated in other countries, including Liberia, the Philippine Islands, Brazil, Nigeria and the Belgian Congo. Other trees producing rubber include *Manihot glaziovii*, *Ficus elastica*, *Castilloa elastica* and *Funtumia elastica*. Rubber from these trees, from vines such as *Landolphia* in Africa and from the shrub *Guayule* in the southern parts of North America became of some temporary importance during World War II when the rubber-producing areas of the Far East were in Japanese occupation. In Russia a species of dandelion, *Taraxacum koksaghyz*, which contains a certain amount of rubber in the roots, has been cultivated on a large scale, but rubber from koksaghyz cannot compete economically with Hevea rubber.

Although the plantation industry is a twentieth century development, the first attempts to grow *Hevea* as a cultivated tree in other areas than its original home date back to 1875. In that year seeds were first collected from the best rubber trees in the Upper Amazon Valley by Mr. (afterwards Sir Henry) Wickham on behalf of the Royal Botanic Gardens, Kew. Attempts were made to establish the seedlings grown in Kew first in India, but without success, and then successfully in Ceylon and Singapore.

Hevea is a quick-growing, tall tree which does best in a moist and equable climate with a well-distributed rainfall, preferably not less than 80 inches a year, and a minimum temperature of about 70° F. The tree prefers a well-drained soil and although it will grow at altitudes up to over 2,000 feet, it does best at or near sea level. Stands of rubber on plantations are reduced by successive thinnings to rather more than 100 trees per acre at maturity, but on small holdings densities as high as 300 to the acre occur.

Latex is obtained from the trees by tapping, which consists of making an incision in the bark of the trunk, cutting away a thin shaving and collecting the latex in a cup. Considerable research has been carried out on the technique of tapping, and many different systems are in vogue. A common system is the alternate-day half-spiral (that is a tapping cut on half the circumference of the tree on alternate days). The intensity of tapping, which depends on the length of the tapping cut and the frequency of tapping, is reduced for some high-yielding clones (see below). Seedling trees are ready for tapping when about five years old, while budded rubber takes seven years, though some variations occur. The maximum life of the rubber tree under plantation conditions is not known with any certainty, but some have been tapped for three or four decades. The yield of unselected trees in pounds of dry rubber per acre varies from 150 to 250 lbs. in the fifth year and from 350 to 500 lbs. in the tenth year. The plantation industry has, however, in fairly recent years, been revolutionised by the development of high-yielding clonal rubber. As a result of research it was discovered that certain high-yielding trees known as "mother" trees had the power of transmitting their high yield to their budded offspring which are known as "clones." Good rubber clones yield from two to three times the amount of dry rubber obtained from ordinary seedling trees and yields of 1,000 lbs. or more per acre are now common, while yields as great as 3,000 lbs. per acre have been claimed.

A more recent development is the use of clonal seed, that is the seed from rubber clones either pollinated by hand (for research purposes) or obtained from clonal seed gardens ("near" legitimate clonal seed) or picked up in a field of ordinary bud grafts (illegitimate clonal seed). "Near" legitimate clonal seed is obtained from seed gardens planted with clones which, as the result of knowledge gained from hand-pollination experiments, are known to produce high-yielding offspring from seed.

The availability of superior planting material in the shape of clonal bud grafts, and clonal seed, has led to considerable up-rooting and replanting of old rubber. This has been successful, especially where soil conservation measures in the form of cover crops, contour bunds and contour terraces have been taken in order to prevent soil erosion. The higher the yield per acre the lower the cost of production per pound, so that the use of the improved planting material which science has made available is one of the most important ways in which the natural rubber industry can raise its efficiency. Re-planting is, however, expensive, so that funds for it can be set aside only when rubber prices are reasonably high. To get the full advantage of increased output from budded rubber it is, moreover, necessary to have a close network of roads which will permit the collection of latex by mechanical means, with a very short carry for the individual tapper.

Rubber is exported from the producing countries largely in the form known as "ribbed smoked sheet." Smaller amounts are exported as crepe (including sole crepe) and preserved latex, the latter having recently come into considerable demand, particularly for the manufacture of latex foam cushioning. Powdered rubber has also been prepared for experimental use in asphalt road surfacing, and other special types of rubber may find an outlet as scientific knowledge grows.

The main forms in which rubber is shipped call for the initial coagulation of the latex by acetic, formic or other acids. For the manufacture of Sheet Rubber, which is the commonest form of preparation, the latex is standardised to 1½ lbs. dry rubber content per gallon and coagulated in tanks, the standard size of which is 10 feet × 3 feet with a depth of 18 inches, divided up by aluminium slats, 1½ inches apart, keeping the thickness of the coagulated slabs to about ¾ inch. These slabs are then squeezed between rollers and hung in a smoke house for a period varying from four to six days. As well as being extensively used by estates, this is the ideal system for the smallholder because no elaborate machinery is required. In the preparation of crepe rubber the coagulum is passed through heavy power-driven machinery and then dried either naturally in sheds, or artificially in hot air dryers. Many manufacturers consider that an improvement in the uniformity of ribbed smoked sheet is desirable and that larger scale bulking of latex before coagulation would improve uniformity. The provision of central factories for large scale bulking would involve a large outlay of capital, and the cost of transporting the freshly collected latex would also be considerable. Opinion is divided on whether these large factories are likely to be as economical as the smaller units serving individual estates. Co-operative factories for the treating of smallholders' rubber exist and the creation of fresh ones is being encouraged.

Liquid latex is preserved usually with ammonia and is concentrated either by centrifuging, creaming or evaporation, so as to increase the solid or "dry rubber" content to about 75 per cent for the evaporated concentrate, and between 61 per cent and 62 per cent for the centrifuged or creamed latices which form the greater part of the latex exported. Creamed latices with a dry rubber content of from 64 per cent to 68 per cent have recently appeared on the market, but for most purposes the 62 per cent concentration is preferred.

Rubber is graded for price purposes by inspecting representative samples for cleanliness, etc. The grades are based on appearance specifications drawn up by the Rubber Manufacturers' Association of New York and generally accepted by the rubber trade. This system of grading gives little indication of how rubber behaves in manufacturing operations. A Technical Organisation of Natural Rubber Producers in Malaya was formed towards the end of 1949 to promote the improvement of the quality of natural rubber. It is examining the possibility of introducing a system of technical grading for solid rubber by its intrinsic measurable qualities. Such technical grading has been started by French producers in Indo-China, and steps are being taken to establish simple methods of measuring the physical properties of rubber which give uniform results.

Considerable research and development work is being carried out on the problems of rubber growing and processing, the physical and chemical properties of natural rubber and the development of existing and new uses for rubber. This work is being financed in the British S.E. Asia Territories by means of a cess levied on exports of natural rubber. In Malaya the cess is one-quarter of a Straits cent (approximately one-fourteenth of a penny) per lb., which is paid into the Malayan Rubber Fund from which the expenses of the various research and development bodies are met. These are the Rubber Research Institute of Malaya, which carries out research work into rubber growing and processing, the British Rubber Producers' Association, which carries out research on the basic science of rubber with a view to increasing the quality and range of goods which can be made from natural rubber, and the British Rubber Development Board, which encourages the commercial development of both existing and new uses for rubber by propaganda and industrial trials. Research and development are co-ordinated with work carried on in other countries by the International Rubber Research Board and the International Rubber Development Committee.

WORLD PRODUCTION AND CONSUMPTION

Rubber entered commercial use in the first half of the nineteenth century, but the small quantity internationally traded at that time was all collected from wild trees. Gradually, especially after the discovery of the vulcanisation process, the material was found useful for a number of industrial purposes, such as the manufacture of waterproof fabrics, footwear and balls of various kinds. The greatest impetus, however, to a vast expansion of the rubber industry came with the invention of the pneumatic tyre. This was first developed for use on the bicycle, but it became far more important with the development of the motor car industry at the end of the last century. In spite of a great variety of purposes for which rubber has been found useful, the requirements of the motor car industry have been the decisive factor in the demand for rubber.

Prior to this great expansion in the demand for rubber the British were instrumental in bringing about far-reaching changes in the methods of production and the main sources of supply. In the first decade of this century, thanks to the earlier introduction to the East of a few Hevea trees from Wickham's seeds, plantations were laid out in Malaya, Ceylon and the Netherlands East Indies, and by 1914 over 2 million acres had been planted. During the first world war, trees planted in the quinquennium preceding 1914 reached maturity and by the end of the war production was about three times as much as at the beginning, while wild rubber had declined to a fraction of total supply. Production had thus become concentrated in South-Eastern Asia, including Ceylon and India, less than a tenth of the world's rubber being produced outside that region. From then onwards production continued to expand. The following table (drawn up from the Rubber Statistical Bulletin)* shows production and consumption of natural rubber in certain years from 1900 onwards :—

RUBBER: WORLD PRODUCTION AND CONSUMPTION 1900-1950

	Production Thousand Tons	*Consumption Thousand Tons*
1900	45	53
1910	95	100
1920	343	298
1930	825	710
1940	1,415	1,110
1950	1,850	1,705

In the second world war, when, with the exception of Ceylon and India, the main producing areas in South-East Asia passed under Japanese occupation, the allies were compelled to look for substitutes for a material vital to the conduct of the war. To a very limited extent it was possible to draw increased supplies of natural rubber from Brazil, Ceylon and Africa, but the difficulty could not have been overcome without the establishment of the synthetic rubber industry in the United States and in Canada, one of the major technical achievements of the war.

The world area under rubber (excluding wild rubber) in recent years was roughly 9,400,000 acres. By far the largest producers are Malaya and Indonesia which together accounted for about 75 per cent of world production in 1950. Their share of estimated world production in 1938, 1948, 1949 and 1950 respectively, was :—

RUBBER: MALAYAN AND INDONESIAN PRODUCTION, 1938 AND 1948-50

	1938 *tons*	1948 *tons*	1949 *tons*	1950 *tons*
Malaya ..	359,502	698,189	671,503	694,086
Indonesia ..	317,191	432,349	431,841	687,584
Estimated World Production	910,000	1,525,000	1,487,500	1,850,000

In both countries rubber is planted on estates as well as on smallholdings (i.e., holdings under 100 acres), the latter accounting in 1950 for about 46 per cent of total production in Malaya and for roughly 75 per cent in Indonesia.

Other rubber-producing countries in Asia are Viet Nam, Cambodia, Thailand, Sarawak, North Borneo, India, Burma and Ceylon. Outside Asia some rubber is produced in Africa, especially Liberia, Nigeria, the Belgian Congo and the French Cameroons, and in certain territories of the Pacific, for instance Papua. Efforts have also been made to establish a rubber plantation industry in South America, the original home of wild rubber, but success has so far been small owing to the incidence of disease and the shortage of labour.

The United States consumes about half the world output of natural rubber. In 1950, for example, 44 per cent of all natural rubber was absorbed by the United States as against an average of 51 per cent in 1935-39, while the United Kingdom's share was 12 per cent in 1950. The outstanding position of the United States as a buyer of rubber is primarily due to the large demand of the American automobile industry which in 1949 accounted for about 67 per cent of total natural rubber consumption in that country ; similarly tyres and inner tubes absorbed about 57 per cent of the rubber consumed in the United Kingdom. However, rubber is being used by a great many other industries besides the motor car industry. Continuous research carried out into the properties of natural rubber by the research organisations of the manufacturers and of the natural rubber producers has led to the development of important new uses for natural rubber, such as the use of foam latex for cushioning and the use of rubber powder in road surfaces.

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* Published by the Secretariat of the Rubber Study Group.

The preponderance of one country—the United States—and of one industry—road transport—on the consumption side makes the rubber market extremely sensitive to changes in business conditions in the United States. The influence of this factor on demand was complicated before the war by the fact that users could, to a certain degree, counteract high prices of raw rubber by using increased quantities of reclaimed old rubber, while since the war the availability of synthetic rubber at a fixed price has had a similar effect.

On the production side the fact that trees mature only five to seven years after planting means that medium-term supply tends to be inelastic. However, since tapping can be controlled, limited adaptation of output to varying demand is possible in the short run. In general, elasticity is less for estates with high overhead costs than for smallholders, but in the case of the latter the influence of the rubber market is obscured by an additional factor—viz., the relation between the prices of rice and commoner foods, and of rubber.

As a result of all these factors the price of raw rubber has been very unstable, periods of exceptionally high prices—e.g., annual averages of 2s. 1d. a lb. in 1919 and 2s. 11d. in 1925 being followed by periods of low prices—e.g., 9½d. in 1921, 10¾d. in 1928, and 2¼d. in 1932. The first tentative efforts at reducing these fluctuations were made in 1918 and 1920 ; the next was the Stevenson Scheme (1922) which applied, however, only to Ceylon, the Malay States, and the Straits Settlements, while British owners of plantations in the Netherlands East Indies agreed voluntarily to restriction of output. The more remunerative prices which the scheme produced stimulated production elsewhere, particularly in Indonesia, while it failed to eliminate wide fluctuations in the price ; as a result the scheme was eventually abandoned.

The very heavy fall in prices during the economic depression of the early thirties—to as low as 1⅝d. a lb. in June, 1932—revived the question of control of output. Protracted negotiations led to an agreement which was signed on 7th May, 1934, and which embraced all the more important rubber-producing countries. The agreement, which was for the period ending 31st December, 1938, in the first instance, allocated to the various producing countries basic export tonnages varying percentages of which were allowed to be exported during each successive period of three months, the percentages for each period being fixed in advance by decisions of an International Rubber Regulation Committee. Although only the producing countries were represented on this Committee its deliberations were much assisted by nominees of the manufacturing industries of the principal rubber-using countries who sat as advisers. New planting was prohibited under this agreement from 1934 to 1938 (except for experimental purposes), and limited to 5 per cent of the total area under rubber for the period of five years beginning 1939 ; replanting of areas already under rubber was also limited to 20 per cent of those areas during the period from 1934 to 1938, but was not restricted after that time. The main stated objective was to keep the rubber price fairly stable, at a figure which was reasonably profitable to efficient producers. The agreement was renewed with revised basic tonnages for a further five years as from 1st January, 1939. After a brief extension it came formally to an end in April, 1944, although the events of the war had made it inoperative since 1942.

Towards the end of 1944 the Governments of the Netherlands, the United Kingdom and the United States formed a Rubber Study Group, which was joined by France at the Second Meeting. At the Third Meeting of the Group in 1946 it was decided, in accordance with Chapter VI of the draft (Havana) Charter of the I.T.O., that membership of the Group should be open to all countries substantially interested in the production or consumption of, or trade in, rubber. By May, 1951 18 Governments had joined the Group. In accordance with a special provision relating to countries with oversea dependent territories the United Kingdom Government is represented by two delegations, one representing the metropolitan country as a consumer and the other representing the British Colonial and Dependent territories which are producers. The Group therefore has 19 members.

The Group has no executive functions, but it meets from time to time to review the development of rubber production and consumption, and it provides continuous information, statistical and other, on the world position of rubber and its probable development. One of its principal objectives is to consider measures designed to expand world consumption of rubber and to give encouragement to the development work which is being done by various bodies in this field. In the event of any special difficulties arising or being expected to arise in the world rubber situation, it has to consider how best to deal with such difficulties and may submit reports and recommendations on the subject to member Governments. To conduct its work the Group has established a permanent Secretariat in London with a Management Committee, appointed from member Governments, to supervise and direct.

Reference has already been made briefly to a new factor of great importance in the post-war Rubber Market, viz., the emergence of an important synthetic rubber industry in the United States, and, on a smaller scale, in Canada. Although research into the production of synthetic rubber had been carried on in a number of countries, production on a substantial scale had been developed before the War only in Germany and Russia. There was little public information available on the processes used and on the quality of the products. It was, however, known that the cost of production of synthetic rubber was considerably higher than the price at which natural rubber was sold. Firms had been working on the problem in the United States before the War, and after Pearl Harbour. After the loss of the principal natural rubber producing areas in the Far East the erection of extensive plant for the production of synthetic rubber was financed by the United States Government.

Several kinds of synthetic rubber differing in quality are now being manufactured. From time to time improvements in existing synthetics are made and new ones are discovered. GR-S, the most important, which is a copolymer of butadiene and styrene and is known as a "general-purpose rubber," accounted in 1950 for 67 per cent of known world production of synthetic rubber.* Production in the United States is at present being partially turned over to a new variety of GR-S ("cold" rubber, so called because the polymerisation temperature is 41°F. or lower, instead of the 120°F. required for the production of the original GR-S) for which improved properties are claimed ; 38 per cent of GR-S produced in 1950 was "cold" rubber. There is a large measure of interchangeability between natural and synthetic rubber in many uses ; but natural rubber is essential for heavy duty tyres and is generally preferred, though certain synthetic rubbers such as Neoprene or butyl are superior to natural rubber for some special purposes. The Neoprene types are resistant both to oil and to fire, while butyl rubber is in demand for inner tubes owing to its being virtually impermeable to air. Any detailed consideration of these special purpose synthetics would here be out of place, however, since they are not substitutes for natural rubber in the general sense. The use of synthetic instead of natural rubber involves slightly different processing techniques, so that the change-over from one material to the other cannot be made at short notice. A further factor to be taken into account is that the United States Rubber Act of 1948 which will remain in force until 1954, requires the compulsory use of a certain amount of synthetic rubber by U.S. manufacturers.

The following table gives the production, consumption and stocks of natural and synthetic rubber (excluding

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* **Figures from Rubber Statistical Bulletin.**

Russian synthetic rubber production) in representative years :—

RUBBER : WORLD PRODUCTION, CONSUMPTION AND STOCKS, 1938 AND 1948-50

(Thousand Tons)

	1938		1948		1949		1950	
	Natural Rubber(1)	*Synthetic Rubber*	*Natural Rubber*	*Synthetic Rubber*	*Natural Rubber*	*Synthetic Rubber*	*Natural Rubber*	*Synthetic Rubber*
Production ..	910	6 (Est.)	1,525	532	1,488	440	1,850	535
Consumption ..	955	5 (Est.)	1,423	480	1,438	450	1,705	580
Stocks at end of year	708	5(1) (1939 Est.)	770(2)	125	720(2)	110	748(2)	60

(1) Production restricted under International Rubber Regulation Scheme.
(2) Excluding Government Stocks not available for commercial consumption.

It will be seen from the table on page 63, which gives pre-war and post-war production of the major producing countries, that production in Malaya rapidly recovered after the war, while Indonesian production recovered more slowly. In 1950 the stimulus of high prices led to the record production of 1,850,000 tons of natural rubber.

Average prices of natural, synthetic, and reclaimed rubber (per lb.) were :—

RUBBER : AVERAGE PRICES, 1938 AND 1948-50

	1938		1948		1949		1950	
	London	*New York*	*London*	*New York*	*London*	*New York*	*London*	*New York*
	s. d.	cents	s. d.	cents	s. d.	cents	s. d.	cents
Natural Rubber (No. 1 R.S.S.)	0 7$\frac{7}{32}$	14·56	1 0$\frac{29}{32}$	22·01	0 11$\frac{25}{32}$	17·56	2 9$\frac{9}{32}$	41·10
Synthetic Rubber (GR-S) ..	—	—	—	18·5	—	18·5	—	19
Reclaimed Rubber	0 3$\frac{17}{32}$	6·125	0 5$\frac{21}{32}$	8·08	5½	8·375	0 6⅛	9·19

Rubber since the war has not belied its pre-war reputation of price instability. No. 1 R.S.S. reached a peak of 1s. 3d. in London in July, 1948, only to drop to 10¾d. in June, 1949. By June, 1950, the price had risen to 2s. 3d., the highest sterling price for over 20 years, and rose to more than 5s. in the latter part of 1950, falling to 3s. 6d. in June, 1951. The price of synthetic rubber (GR-S) was held constant at 18½ dollar cents per lb. from 1944 to December, 1950, when it was raised to 24½ cents per lb., and September, 1951, when a further increase to 26 cents per lb. was authorised.

The supply of natural and synthetic rubber at present much exceeds normal consumption, largely owing to the great expansion in synthetic rubber production which has taken place since the outbreak of the Korean war in June, 1950, but stockpiling requirements obscured the effect which this would have had on prices during 1951.

COLONIAL PRODUCTION

Malaya, i.e., the Federation of Malaya and Singapore, is by far the most important rubber producing area in the Colonial territories, and, in fact, the principal source of supply of natural rubber to the world market, 37 per cent of net world exports originating there in 1950. Rubber is, with tin, the mainstay of the Federation's economy. On a rough calculation at least a third of the working population obtain their livelihood from rubber, and rubber accounts for about 60 per cent of the Federation's total exports. An export duty on rubber provides the Government of the Federation of Malaya with about 50 per cent of its total revenue. The acreage under rubber in 1949 was 3,412,000 acres or 70 per cent of the cultivated area (3,385,000 acres in the Federation and 27,000 acres in Singapore) ; this was slightly less than in 1940.

An important feature of the industry is that both in the Federation and the Colony rubber is grown on estates as well as on smallholdings (under 100 acres each), the respective proportions being 59 per cent and 41 per cent of the total acreage. The contributions to total output of estates and smallholdings respectively in 1950 were roughly 54 per cent and 46 per cent. Three-quarters of the acreage occupied by estates is owned by European capital, most of the rest by Chinese, and a few estates are owned by Indians. The smallholdings consist of medium holdings of 25 to 100 acres each, largely owned by Chinese or Indians, and some 350,000 holdings of under 25 acres, many of 2 to 5 acres only, owned for the greater part by Malays. While the estates and, to a smaller degree, the medium holdings employ hired labour most of it, particularly on the estates, recruited in the past in India, the greater part of the work on smallholdings is done by the peasant and his family.

Most of the trees in Malaya are over 25 years old, and the average yield per acre is only around 500 lbs., as against an average yield of over 1,000 lbs. per acre on those estates which were planted more recently with improved planting material. High yielding strains giving about 1,500 lbs. per acre under normal conditions are now available. The use of approved planting material has been made compulsory in Malaya in connection with the alienation of land for new planting. The replanting of existing rubber acreage with new high-yielding strains is accepted policy on most estates, if funds permit, but few estate owners aim at replanting more than 3 to 4 per cent of their acreage annually, since even a programme of this order involves a reduction of annual output of about a quarter by the time the planted trees in the first year are approaching the stage of production. On smallholdings replanting is proceeding even more slowly because the owners cannot afford a reduction of income as serious as this, despite the fact that arrangements have been made to provide planting material to them free.

Although rubber plantations had suffered complete neglect during the Japanese occupation and much machinery and many buildings had been destroyed, vigorous steps to rehabilitate the plantations were put in hand after the liberation of Malaya. As a result, production rapidly recovered its pre-war level and by 1947 was greater than it had ever been before. Some of this high production has been due to the flush yields which come when trees are rested, and the temporary nature of this factor combined with the cutting out of some trees for replanting purposes prevented the rise in production from continuing after 1948. Further long-term increases in production will be dependent on the amount of replanting undertaken, although short-term spurts in production are always possible under the stimulus of high prices, as in the latter half of 1950.

Rubber is also produced in Sarawak, North Borneo and Brunei, exports in 1950 being 55,765, 23,896 and 2,496 tons respectively. In Sarawak, where about 95 per cent of all rubber is produced by smallholders, rubber is by far the most important agricultural industry. It is also the principal export of North Borneo. According to a recent report,* the total area under rubber in that territory consists of holdings of different sizes as follows :—

Estates of over 100 acres each	58 per cent
Holdings between 25 and 100 acres each	14 „ „
Holdings under 25 acres each	28 „ „

In Brunei rubber-growing, though of lesser importance, is the most important agricultural industry. As in Malaya, but in an even more acute form, the replacement of low-yielding trees with high-yielding material is the main problem in these territories.

Rubber is also grown in small quantities in West and East Africa. During the occupation of the Far Eastern producing areas by the Japanese in the 1939-45 war, both the production of plantation rubber and the collection of wild rubber was encouraged in Africa, where towards the end of the war it became possible to increase supplies, particularly from Nigeria, the Gold Coast and Tanganyika. However, the quantity of rubber obtained from all these countries was under 14,000 tons even in the best year (1945). The most important rubber-producing British territory in Africa to-day is Nigeria, where production, under the stimulus of high prices, reached a total of 13,409 tons in 1950.

The rubber produced in the Colonial territories is a most important dollar earner for the sterling area. The value (f.o.b.) of Malayan exports (including re-exports) of rubber to the United States and Canada and the rest of the " dollar " area in the three years 1947, 1948 and 1949 were 400, 350 and 235 million Straits dollars or approximately 190, 165 and 100 million United States dollars respectively.

Mention should also be made of the important rubber entrepôt trade of Singapore and, to a lesser extent, Penang. Rubber producers in other parts of South-East Asia export their rubber in unmilled form to these ports, where it is milled and packed in a form suitable for export to consuming countries. This trade, which was showing a tendency to decline before the war owing to the setting up of rubber remilling factories in other producing territories, particularly Indonesia, again assumed large proportions after the war, owing partly to the destruction of rubber factories in Indonesia and partly to the unsettled conditions in that country.

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* Report of North Borneo Rubber Commission, 1949, p. 6.

PRODUCTION OF NATURAL RUBBER IN CERTAIN TERRITORIES, 1939-40 AND 1947-50

(Long Tons)

	1939	1940	1947	1948	1949	1950
Colonial Territories						
Malaya (including Singapore)	360,102	547,202	646,362	698,189	671,503	694,086
Sarawak	24,000	35,000	36,750	39,680	39,461	55,615
North Borneo (1) ..	11,864	17,623	15,010	20,086	19,526	23,896
Brunei (1)	1,282	1,969	1,952	2,046	1,694	2,496
Nigeria (1)	2,824	2,903	7,445	8,048	6,769	13,409
Other Countries						
Indonesia	378,210	543,205	277,951	432,349	431,841	687,584
Ceylon (2)	60,000	90,000	89,000	95,000	89,500	113,500
Viet Nam, Cambodia ..	68,000(2)	64,000(2)	38,128	43,935	43,010	48,482
Thailand (1)	41,753	43,940	52,558	95,913	94,234	112,234

(1) Net exports. (2) Approximate figures.

SPICES AND CONDIMENTS

Under the definition " spices " are included certain aromatic or pungent vegetable products of such diverse origin as fruit seeds, flower buds, bark and underground stems or rhizomes. Spices are, for the most part, grown within the tropics, and some varieties are grown almost exclusively in certain limited areas.

Most spices are used as food flavourings, either in their crude state or after grinding. Some of them are used, either additionally or exclusively, for the manufacture of flavouring essences. They are also put to other uses, e.g., for medicinal purposes.

" Condiments " is a convenient term to apply to a small group of products which are not usually classed as spices, but which are used as food flavourings and " curry stuffs."

Practically all kinds of spices are produced somewhere in the Colonial territories but the production of many is very small and is entirely consumed locally. Tables B. 18-27* set out the principal exports for the years 1938, 1939, 1946, 1947, 1948 and 1949. Like the essential oils, with which several are very closely connected, spices can never compare in importance with the major colonial products, but they do provide a useful secondary line of production and source of income to a number of colonies, and in some of the smaller territories (e.g., Zanzibar and Grenada) they represent one of the principal products.

The following notes deal briefly with those condiments and spices which are of most importance in the Colonial territories :

CHILLIES, CAPSICUMS AND RED PEPPERS

Chillies, Capsicums or Red Peppers are the fruit of a small annual or perennial bushy plant, growing some 2-4 feet high, and are usually an indispensable pungent flavouring ingredient in the food of people in tropical countries. A very large proportion of the crop is used locally in a fresh state ; but substantial quantities, usually of the sun-dried pod-like fruits, are exported to be ground into powder in the importing countries and used in pickles, sauces, medicines and, with other spices, in Cayenne pepper.

The principal source of commercial supplies is India, and chillies represent about half the total exports of Indian spices. Among Colonial territories the principal exporters are the three East African territories (more especially Uganda), Sierra Leone and Nigeria, but the total value of exports from the Colonial territories is relatively small.

CINNAMON

Cinnamon is the dried bark of shoots of the cinnamon tree, *Cinnamonum zeyanicum*, which is grown in Ceylon, South India, the Seychelles and the West Indies. The tree itself may grow to a height of 20 to 30 feet and the trunk may be upwards of three feet in circumference. The trees cultivated to produce the cinnamon of commerce are coppiced and long willowy shoots are produced growing to a height of about 10 feet, two or three inches in circumference. In favourable circumstances shoots may be cut from the fourth year.

Ceylon is the principal source of commercial supplies. Production in the Colonial territories is unimportant. Small quantities are, however, exported each year from the Seychelles and Grenada. During the war exports from both territories increased considerably, but recent figures suggest that exports have fallen now that alternative supplies have become more freely available.

CLOVES

Cloves are the dried unexpanded flower buds of *Eugenia caryophyllus*. The tree is an evergreen, frequently reaching a height of from 30 to 40 feet. The buds grow in clusters of from 10 to 50 or more heads. Starting as minute pale green shoots the buds are about ¾ inch in length before reaching full size. The long calyx is then tinged with delicate pink, at which stage they should be picked. The tree begins to bear in the eighth or ninth year and reaches full production between the fifteenth and twentieth year, then yielding from three to eight lb. of cloves annually.

The tree is a native of the Moluccas (Indonesia) but was introduced into Zanzibar and the sister island of Pemba somewhere between 1820 and 1830. The Zanzibar Protectorate and Madagascar are now the main sources of world supplies, of which Zanzibar contributes about 75 per cent. Of the Zanzibar production about three-quarters now comes from Pemba.

Of the many uses of cloves the flavouring of apple pie, if the most familiar, is the least important. Cloves are purchased for different purposes in three main markets :—

(i) top grade cloves for spices, of which small quantities are sold to Europe and the United States, but for which India is normally the main market ;

(ii) grade II cloves used, principally in Indonesia, in shredded form for mixing with tobacco to make a particularly aromatic cheroot or cigarette ; and

(iii) other cloves shipped to the United States and Europe for the manufacture of Essential Oil.†

For the last 50 years clove trees in Zanzibar are known to have suffered from a disease known as " Sudden Death," but up to 1935 its intensity, though disturbing, did not present an immediate threat to the survival of the industry. Since then it has increased very rapidly in Zanzibar Island and about half the mature clove trees have already been destroyed. In Pemba the disease has so far developed more slowly. While in Zanzibar itself the disease has spread throughout the island, in Pemba it is still localised. Research has so far failed to reveal the cause, the nature or the method of spread of the disease, though the weight of evidence suggests that it is a virus disease the vector of which is suspected to be an insect whose spread is facilitated by its association with a species of tree-nesting ant. In the absence of scientific proof as to the nature of the disease it has not been possible to discover a satisfactory method of control. Research into the nature of the disease is being conducted by the Clove Research Scheme, inaugurated in 1947, and financed partly from Colonial Development and Welfare funds and partly by the Zanzibar Clove Growers' Association.

Cloves are produced by individual Arab, Indian and African agriculturists on their own plantations, and the task of picking is carried out with hired African labour drawn from the indigenous population or from temporary visitors from the mainland. The industry is organised by the Clove Growers' Association which came into existence in 1927, and was incorporated by decree in 1934. The Association was formed to protect the interests of clove growers by preventing violent market fluctuations. It is controlled by a Board of Management, consisting of 12 members (six officials and six unofficials) appointed by the British Resident. Guaranteed minimum prices are fixed by the Government at which the Association will buy ; growers are free to sell to the Association or direct to exporters, but, while the Association itself does not export direct, exporters are compelled to purchase a varying percentage of their exports from the Association. The Association has an exclusive licence for the distillation of clove oil and purchases the entire crop of clove stems. It is also responsible for the purchase and distribution of all bags for the internal use of the clove industry, and to finance this a levy of 1s. per 100 lb. is effected at the time the cloves are exported. Another function of the Association is to issue loans to growers to finance the production of cloves.

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* See pp. 126-135.

† See p. 24.

Up to 1948 cloves were by far the most important export from Zanzibar, being valued at £1,159,322, £555,106 and £1,000,404 in 1946, 1947 and 1948 respectively. But the war-time occupation of Indonesia by the Japanese, the unsettled conditions which have prevailed there since the liberation and the introduction of an import quota system by India in 1947 have all seriously interfered with the normal pattern of trade. In the immediate pre-war years Indonesia imported annually an average of 50 per cent in value of Zanzibar's clove exports. After the Japanese occupation of Java, India became the principal importer and in turn took approximately 50 per cent of the total. Direct trade with Indonesia has so far shown few signs of recovering; but there were increasing exports to Singapore in 1948 and 1949, and it may be assumed that most of these eventually reached Indonesia.

CUMIN

Cumin (*Cuminum cyminum*) is an annual herbaceous plant growing two to three feet high. It is cultivated in the Mediterranean and Northern India, but nowhere in the tropics. It bears a small ovoid seed rather like a caraway seed with a strong aromatic smell and a warm bitterish taste. It is used as a condiment and as the source of an essential oil.

The only colonial producer is Cyprus. In Malta, where over 1,100 acres were devoted to the production of cumin seed before the war, production practically ceased during the war and has not yet been resumed. In Cyprus, also, production fell during the war, but is now picking up; exports averaged 338 tons for the three years 1946-48 as compared with 675 tons for the three years 1937-39. Output in 1950 was 670 tons.

GINGER

Ginger (*Zangiber officinale*) is a herbaceous perennial plant with leafy shoots which grows to a height of two to three feet. It was originally a native of tropical Asia but is now cultivated in many tropical countries. The underground tuberous stems (rhizomes) are the ginger of commerce. These are called " hands " or " races " from the palmate shape, and are exported in two forms, " peeled " and " unpeeled." The plant requires an equable hot and moist climate, a shaded situation and a rich soil. The average return in dry ginger is about 1,250 lb. per acre, but in favourable circumstances the yield may be as high as 2,000 to 2,500 lb.

Ginger is widely used in preserves, chutneys and confectionery, and in the manufacture of ginger beer. It has long been valued for medicinal purposes, and preserved ginger is a highly prized sweetmeat.

The most important world producers of ginger are China and India. The principal colonial producers are Jamaica (once known as " the land of ginger ") and Sierra Leone. Jamaican ginger is of the finest quality, but exports from the two territories are approximately the same in quantity. Smaller quantities are exported from Nigeria and the Gold Coast, and from Fiji where production has been very considerably stepped up during the past few years. Very small quantities are also exported from the Windward Islands and from Mauritius. Some 1,500 acres are devoted to the growing of ginger in the Federation of Malaya, but the territory is a large net importer.

Hong Kong is not a producer of ginger, but in normal times it imports from China large quantities of the raw product which it then processes and exports as preserved ginger in sugar or syrup, principally to the United Kingdom.

In no Colonial territory does ginger occupy a particularly important place in total external trade.

NUTMEGS AND MACE

Nutmegs and Mace are both products of the nutmeg tree (*Myristica fragrans*), which grows as high as 70 to 80 feet. Originally a native of Indonesia, it has been introduced into both Malaya and the West Indies, principally Grenada. The trees come into bearing at the age of eight to nine years, and increase in yield till about 30 years old. The average yield of a fully mature tree is about 3,000 to 4,000 nuts a year.

The nutmeg as sold in the shops is the hard brown oval kernel, which in its original form is enclosed in a thin brittle shell, which in turn is surrounded by the lace-like covering of the mace. The whole is encased in the flesh of the fruit which bursts open when it reaches maturity. It is then either picked or allowed to drop to the ground. The mace is removed, flattened, dried (normally in the sun—a process taking 10 to 14 days) and then graded. The seed is dried and cracked, and the nutmeg removed.

Nutmegs and mace are both important spices. Both are also used as a source of essential oil, while the nutmeg contains a fixed fat, the " nutmeg butter " of commerce, which is removed by pressure and is used for scenting soaps and medicinally as a base for ointments.

The main source of both nutmegs and mace is Indonesia which before the war exported an annual average of 3,000 to 4,000 tons of cultivated and 60 to 70 tons of wild nutmeg together with 650 to 750 tons of mace. Within the Colonies the principal producer is Grenada where nutmegs and mace rank with cocoa as the two most important items in the Island's export trade. During the war years when supplies from Indonesia were unobtainable, exports of both nutmegs and mace rose substantially, averaging annually about 2,400 tons of nutmegs and about 350 tons of mace for the four years 1943-46; while, however, the value of exports continued to rise and reached its highest level in 1947, the quantities exported tended to decline as Indonesian supplies once again came on the market. The main outlet for Grenada exports up to 1945 was the United States of America, but more recently the United Kingdom has been the main market.

There are also small exports from Trinidad, St. Lucia, St. Vincent, and Dominica. Production in Malaya is now virtually extinct although some entrepôt trade in Indonesian supplies continues.

PEPPER

Pepper is derived from the berries (peppercorns) of a creeping, perennial vine (*Piper nigrum*), which is a native of the moist low-lying forests of Ceylon and South India, and which has been introduced into Malaya, Siam, Indonesia and Borneo. Both black and white pepper are obtained from the same plant. The peppercorns are picked when they take on a reddish colour and are dried in the sun; if ground with the outer covering left on they form black pepper, but if the covering is removed the ground product is white pepper.

The vine begins to bear in its third year and comes to maturity in its sixth or seventh year. It normally yields two crops a year, and yields vary from 1,000 to 1,500 lb. or more per acre.

Before the war Indonesia was by far the most important source of supply, exporting an average of 20,000 to 35,000 tons a year. India exported 4,000 to 10,000 tons a year. Sarawak was the only important colonial exporter, with an average of 2,200 tons annually over the period 1931-40.

During the war the main sources of supply were cut off and it was found necessary to put pepper on the reserved commodity list and subject it to international direction and control. Exports from India were greatly increased, but apparently at the cost of domestic consumption.

Since the war controls have all been withdrawn. Supplies have not, however, been available from Indonesia owing to the damage suffered by the vines during the Japanese occupation and the continued political instability which has delayed rehabilitation. India consequently has a virtual monopoly of world markets, and prices have risen to extremely high levels. In Sarawak the vines were largely abandoned during the war, and although rehabilitation has been proceeding since the war ended there were still only 150 acres of pepper gardens in 1948, as against an estimated 4,000 acres in 1936. Some pepper was, however, exported in 1946 and 1947, primarily from stocks accumulated during the occupation and subsequent years. Exports in 1950 were 282 tons.

There has been no increase in production or exports from other colonial sources, and so far as is known the small pre-war exports from West Africa and North Borneo have not been maintained.

PIMENTO

Pimento or Allspice is the dried unripe berry of *Pimenta officinalis*, an evergreen of the genus myrtle, which grows to a height of 25 to 30 feet. It is grown commercially only in Jamaica and Mexico, but the Mexican product is generally regarded as inferior to the Jamaican, and Jamaica is the source of the bulk of world supplies.

Flowering commences in about the seventh to tenth year and the tree reaches maturity at the 18th to 20th year. It grows both under plantation conditions and wild. The yield varies greatly, but may reach an annual crop of 1 cwt. of dried berries per tree. The berries have a taste resembling a combination of cinnamon, cloves and nutmeg, and are used both as a ground spice and as a source of pimento oil.*

The small berry, dried, is widely used as a spice for fish-curing purposes in Scandinavia and Russia, and as a flavouring for sausage on the Continent. When ground it is used extensively by the confectionery trades.

Before 1936 annual Jamaican exports varied between 3,500 and 5,000 tons. During the war, with the closure of the Continental markets, there was a substantial fall in demand, and between 1st April, 1944, and 31st December, 1945, it was found necessary to bring pimento within the ambit of the Minor Commodities Scheme under which the entire crop was bought by the Jamaican Government, which acted as sole exporter, and any trading losses were guaranteed by His Majesty's Treasury. Since the end of the war demand has recovered and it has gradually been possible to clear the accumulated stocks. Exports in 1950 were just over 2,000 tons.

In 1934 rust disease first appeared in one of the principal pimento districts of the Island and production for some years was seriously affected. Although no cure or satisfactory treatment for the disease has been found, it does not appear to attack trees below 1,000 feet above sea level and production has been recovering in recent years.

VANILLA

The Vanilla of commerce is chiefly obtained from *Vanilla planifolia*, a large creeping orchid, a native of Mexico. As used in commerce the vanilla pods or beans are fleshy flexible sticks three inches to eight inches long and less than ½ inch thick ; the surface is furrowed longitudinally ; within is a soft, black, aromatic pulp in which are embedded minute black seeds. The pod is gathered when it becomes yellow.

Vanilla is chiefly used in the manufacture of perfumery and for flavouring chocolates, ices, sweetmeats, etc.

It is principally cultivated in Central and South America and on the French islands in the Pacific and Indian Oceans. At one time there was considerable cultivation in British Colonial territories, but the trade was almost completely destroyed by the competition of foreign countries and by the rise of synthetic vanillin, so that before the war it was of little importance, though small-scale production continued in the Seychelles and Dominica. During the war the absence of supplies from Madagascar led to a greatly increased demand for supplies from alternative sources, especially for the United States of America, with the result that exports boomed from Dominica and, to a lesser extent, from the Seychelles. In Dominica vanilla production has been substantially developed in recent years and now appears to be well established as an export crop and dollar earner, although not on the scale reached during the war (for the four years 1943-46 vanilla exports averaged 47,960 lb. annually and accounted for roughly 39 per cent of the island's total exports). In Seychelles the advance was not so pronounced and vanilla continues to be only a small item in the total external trade of the Colony.

Vanilla was grown experimentally in Uganda before the war and small exports are made annually both from that territory and from Zanzibar.

CASCARILLA BARK

Cascarilla bark, the dried bark of *Croton eleuteria*, is the aromatic bark of a shrub or small tree grown in the Bahamas. It has medicinal properties and is also used in flavouring tobacco. Exports in 1947 and 1948 were 64,064 lb. and 10,752 lb. valued at £4,390 and £511 respectively.

BITTERS

Bitters are highly concentrated alcoholic liquors used in very small quantities for flavouring beverages. The best known member of the group is Angostura bitters, for which valuable medicinal and tonic properties are claimed. These are manufactured according to a secret recipe by a British private company in Trinidad, to which colony the manufacture was transferred in 1875 from Angostura, now Ciudad Bolivar, in Venezuela. During the war years exports from Trinidad rose considerably, and bitters became a valuable dollar earner. The average annual export for the immediate pre-war period 1936-1938 inclusive, was 9,763 proof gallons valued at $101,447. The increased post-war sales by Trinidad and the very greatly increased American market are shown in the following table :—

EXPORTS OF BITTERS FROM TRINIDAD

Direction	1939		1946		1947		1948		1949	
	Proof Gallons	$	*Proof Gallons*	$	*Proof Gallons*	$	*Proof Gallons*	$	*Proof Gallons*	$
United Kingdom ..	4,188	45,811	2,732	33,600	4,430	53,208	3,485	44,983	3,477	46,252
United States of America	11	94	43,905	337,494	25,760	208,800	32,184	275,887	27,521	249,228
Other Countries ..	5,227	49,724	10,719	125,025	9,046	116,917	7,418	88,672	9,447	112,656
Total	9,246	95,629	57,356	496,119	39,236	378,925	43,087	409,542	40,445	408,136

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* See p. 25.

SUGAR AND SUGAR PRODUCTS

VARIETIES AND METHOD OF PRODUCTION

" Sugar," for ordinary purposes, means sucrose, one of a large group of substances known to the chemist as sugars and including also glucose, fructose, etc, and valued for their sweetening and nutritive properties. Sucrose is by far the most important of the group commercially. It can be extracted from a number of plants (for example the maple tree, several varieties of palm and sorghum), but the great bulk of the world's sugar is obtained from the sugar-cane and the sugar-beet. The former grows in tropical and sub-tropical climates and the latter in temperate climates. The whole of Colonial production for export is from the sugar-cane. Small quantities of palm sugar are produced for local consumption in certain Dependencies.

Refined white sugar is almost pure sucrose (about 99·8 per cent sucrose). " Unrefined " sugar contains varying degrees of impurities. The degree of purity is measured for commercial purposes in degrees of " polarisation " (which measure the effect of the sugar crystal on a ray of polarised light). Absolutely pure sugar polarises at 100°. White sugars of high purity can be produced by a direct process from cane and beet juices but it is usual, particularly with cane sugar, for " raw " dark sugar to be produced directly and for further refining processes to be carried out separately. These further refining processes are most cheaply done in large establishments and are mainly concentrated in the large consuming countries. The standard polarisation of raw sugar is about 96° and most British West Indian (and Cuban) sugar is of that quality; but " raw " sugar polarising up to nearly 99° is produced, notably in Mauritius. That Colony formerly produced white sugar polarising even above 99°, which was sold for direct consumption; but since the adjustment of the United Kingdom sugar duties in 1928 a larger preference has been earned on sugar below 99° and the polarisation of Mauritius sugar is now usually under this figure. There is a small demand for special types of unrefined sugars (e.g. Demerara crystals and muscovado or brown sugar) for direct consumption and some Colonial producers specialise in these sugars.

The sugar-cane, a species of grass, grows very widely in tropical and sub-tropical areas. There are many varieties suited to different conditions of climate and soil and the methods of cultivation vary with these conditions. Canes can be grown for a number of years from one root stock without replanting. The first crop, which is reaped at the age of about 12 to 18 months, is known as plant cane. The subsequent crops, known as ratoon crops, are each reaped at the age of about 12 months. The number of ratoons which can economically be reaped before fresh planting becomes necessary is largely dependent on water supply and tilth, and varies from one to seven. Under most West Indian conditions an average yield of more than 30-35 tons of plant and ratoon cane to the acre is considered good. In Hawaii, where the life of each plant and ratoon crop is two years, and where the soil is exceptionally favourable and ample supplies of irrigation water are available in most areas, average yields of about 60 tons to the acre are obtained.

The manufacture of sugar from the cane stalks consists essentially in the extraction of the sucrose and the removal of various organic and inorganic impurities. The average sucrose content of ripe canes is about 13 per cent, but the proportion varies widely; the sucrose is contained in the juice which is extracted by crushing the cane. After various impurities have been taken out the juice is boiled until sufficient of the water has evaporated and the sucrose crystallises and is separated out. The processes are simple in principle and can be carried out in primitive fashion with a hand-mill and an open pan; but economic and efficient modern production with a high degree of extraction involves the use of complicated and expensive machinery which must be supervised by highly qualified technical staff; crushing mills with their auxiliary knives, shredders, etc.; multiple effect evaporators, vacuum pans, and chemical control of the processes. It therefore demands considerable industrial skill and, if full advantage is to be taken of mechanical aids and mass production methods, factories of some size are required. The largest sugar factories in the world, which are in Cuba, can produce over 100,000 tons of sugar per annum; a high degree of efficiency can also be obtained from smaller units down to about 5,000 tons capacity, but about 25,000 tons is the least capacity now generally considered desirable. The largest factories in the Colonies, the Monymusk factory in Jamaica and the Sainte Madeleine factory in Trinidad, have capacities of over 50,000 tons. An efficient factory extracts something like 90 per cent of the sucrose in the cane, and with modern canes rich in sucrose can make a ton of sugar out of 7-7½ tons of ripe canes; a further percentage of sugar is retained in molasses but the percentage lost is small. A number of by-products are, or can be, produced, the most important of which are mentioned below.

Considerable advances have been made recently in the Colonies both on the field and on the processing sides of sugar production. Larger yields of sugar-cane have been achieved by the introduction of improved methods of soil management, the use of new varieties, more scientific use of fertilisers as the result of precise field experiments, better control of plant pests and diseases, and increased mechanisation in the cultivation of cane. New varieties of cane bred by the British West Indies Sugar-Cane Breeding Station, Barbados, which yield considerably more sugar per acre, have almost entirely replaced the older varieties in the British West Indies. Some of the new varieties have become extremely popular and in Barbados and St. Kitts, for example, the variety B.37161, which accounted for less than two per cent of the harvested area of sugar-cane in 1942, was reaped in almost 93 per cent of the area in 1949. The work of the Sugar-Cane Research Station in Mauritius has been equally spectacular. The outstanding variety, known as M.134/32, was released for cultivation in 1937. Between 1940 and 1948 the proportion of the total area under this variety rose from 20 per cent to more than 90 per cent. Two varieties bred at the station which give promise of even greater productivity than M.134/32 are now being tested, as are other new varieties from the Barbados Breeding Station.

In some of the British West Indian Colonies the schemes of field investigation are financed by the sugar industry, e.g., in Jamaica and British Guiana; in others, the local government and sugar industry assume joint responsibility. Field investigation in the British West Indies is furthered by the Sugar Agronomist to the Development and Welfare Organisation. In Fiji research and disease control is carried out by the technical staff of the Colonial Sugar Refining Company.

Sugar technological research is carried out under the aegis of the Imperial College of Tropical Agriculture in Trinidad by a sugar research scheme, which is financed partly by the industry and partly under the Colonial Development and Welfare Acts.

WORLD PRODUCTION

According to figures published by the International Sugar Council, which are used throughout this paragraph, world sugar production in 1938-39 amounted to 26,619,000 long tons. The production of the United Kingdom and Commonwealth countries, excluding domestic production of gur in India and Pakistan, amounted to 2,587,000 tons or nearly 10 per cent, of which the Colonies produced 1,152,000 tons. During the war years production was increased in most countries where this was possible, but owing to the devastation of the war, net world production fell and in 1946-47 amounted to 25,389,000 tons. The decrease was largely accounted for by a fall in European production and the virtual elimination of Indonesia, Formosa, and the Philippines as producers; on the other hand Cuba increased her production from 2,734,000 tons in 1938-39 to 5,756,000 tons in 1946-47. By 1949-50 world production was estimated to have risen to 29,434,000 tons with the countries who had suffered from the war gradually coming back again as producers. United Kingdom and Commonwealth production in this year is estimated at 3,483,000 tons, of which 1,461,000 tons were produced by the Colonies. Of the total world production it is estimated that approximately two-thirds consisted of cane-sugar and one-third of beet sugar.

COLONIAL PRODUCTION

Sugar-cane is grown very widely in the Colonial territories and sugar of a primitive kind is manufactured for local use in many Dependencies, but the production of the higher grades of sugar which enter into world trade is confined to (*a*) certain Colonies of the West Indian group; (*b*) Mauritius; (*c*) Fiji; and (*d*) East Africa. The Colonies which have a long established export trade are Barbados, British Guiana, Fiji, Jamaica, the Leeward Islands, Mauritius, St. Lucia, St. Vincent and Trinidad. Kenya and Uganda and more recently Tanganyika have produced sugar for consumption within their own borders and have in favourable years had a surplus for export overseas. One or two smaller West Indian Colonies, for example, Grenada and British Honduras, produce factory sugar largely for local consumption.

Exports from the Colonial territories increased from about 600,000 tons per annum in the early 1930's to 1,018,262 tons in 1939. Exports fell during the war years but have since more than recovered the ground lost. 1,046,000 tons were exported in 1948, 1,259,000 tons in 1949 and approximately 1,210,000 tons in 1950.

The largest Colonial producers are Mauritius, whose exports on average represent somewhat less than one third of the whole; Jamaica and British Guiana, which now usually provide respectively one-sixth and one-seventh of the total; and Fiji, Trinidad and Barbados, supplying from one-tenth to one-eighth each. Exports from Barbados include a considerable quantity of fancy molasses. The industry is of varying importance to the different territories. Mauritius, Barbados, Antigua and St. Kitts are almost wholly dependent on it; in other British West Indian territories and in Fiji it is either the greatest export industry or at any rate one of considerable importance; only in Kenya, Uganda and Tanganyika can it be regarded as a comparatively minor industry. Colonial production of sugar is shown in the table on opposite page.

The organisation of production in all cases centres round the factory but varies considerably in the different Dependencies. The greater part of Colonial output comes from factories manufacturing anything from 5,000 tons to 55,000 tons per annum, but there are many smaller establishments. Most of the largest factories (of, say, 20,000 tons capacity and upwards) are to be found in Trinidad, Fiji, St. Kitts and Antigua; in Mauritius, British Guiana and Northern Trinidad the majority of the factories are intermediate in size (i.e., about 10,000-20,000 tons capacity); in Jamaica and Barbados smaller factories are the rule, although there are some factories of intermediate size and two very large ones in Jamaica. On the whole the tendency in recent years has been towards increased size and centralisation of factories. The supply of cane to the factories may be organised in several different ways; in British Guiana (and in East Africa) almost all the cane is grown on "estates" connected with particular factories and under the same ownership and control; in St. Kitts and Antigua the factory owners, as such, own no cane lands but buy canes (in some cases on a profit-sharing basis) from planters or peasant farmers; in Fiji, where the whole industry is under the control of the Colonial Sugar Refining Company Limited of Australia, almost all the cane used is bought from peasant farmers occupying their own lands or lands leased from the Company; in Trinidad the "peasant farming" and "estate" systems are combined; and in Mauritius, Barbados and Jamaica all the systems mentioned are to be found.

MARKETING OF COLONIAL SUGAR

The marketing of Colonial sugar in the period since the first World War has been shaped by the fact that the United Kingdom and Canada, and only those two countries, offered it a preference. As these markets were capable of absorbing the entire quantity available for export from the Colonies, it has naturally all gravitated there. The rates of preference (for raw sugar of 96 degrees polarisation) are $1 per 100 lb. in Canada and 3s. 8.8d. per cwt. in the United Kingdom. In addition, the United Kingdom assists Colonial exports through the Colonial Special Certificated Preference system.

The early 1920's were years of high sugar prices, but the second half of the decade was a period of expanding world production, particularly with the recovery of European beet sugar production; a large surplus accumulated and prices fell. The highest average price, c.i.f. U.K., was £1 5s. 9d. per cwt. in 1923; by 1925 the average was only 12s. 9d.; in 1930 it was 6s. 7d., and in 1937, 4s. 8½d. The margins of preference were not sufficient to shield the Colonial industries from these conditions. They had difficulty in continuing to operate and the effects on social conditions in the territories were serious. There was no international mechanism in existence which could ensure prices which would cover costs of production for those producers who relied principally on export markets.

A number of attempts were made during the 1920's to tackle the problem internationally but the first which met with any success was the Chadbourne agreement of 1931. This agreement, formed on the initiative of the Cuban industry, was between nine major exporting countries. Its principal aim was to reduce, over a period of years, the large stocks of sugar which were overhanging world markets. The agreement was successful in reducing stocks considerably, but not in raising prices, since increased production by non-members largely defeated its purpose. It was unfortunate in being launched during the world depression, and as the depression got worse prices fell still further; the average in 1933 was 5s. 3d. and in 1935 4s. 8d. per cwt., c.i.f. U.K.

The Chadbourne agreement lapsed in 1936. In 1937 a new international sugar agreement was signed. This was an inter-governmental agreement, embracing consumers as well as producers. Its chief declared object was to ensure adequate supplies to meet world needs but at prices remunerative to producers; a further object was to expand world consumption. The signatories covered some 95 per cent of world trade in sugar. Export quotas were laid down which could be increased to meet increased demand and to counteract excessive price movements, but could not be reduced except by consent. The basic quotas for Commonwealth suppliers were:—

	metric tons
Colonies	965,254
Australia	406,423
South Africa	209,000

giving a total of 1,580,677 metric tons. The actual export quotas fixed for the Colonies were, in the first year of the agreement (1937-38) 1,015,023 metric tons and in the second (1938-39) 1,097,587 metric tons; in both years, exports very nearly reached these figures. The Agreement of 1937 had advantages over the previous arrangement in that it was more comprehensive, but the fact that quotas could not be reduced except by consent threatened it with collapse if world demand shrank. World prices certainly improved somewhat during its period of operation, but the Agreement came into force only in the middle of 1937 and by 1938 the possibility of war was already acting as a hardening factor on the market, since several countries, and in particular Germany, started to accumulate stocks instead of putting them on the market.

SUGAR PRODUCTION IN COLONIAL TERRITORIES

(Long Tons ; Raw Value)

September/August

	1937/38	1938/39	1939/40	1940/41	1941/42	1942/43	1943/44	1944/45	1945/46	1946/47	1947/48	1948/49	1949/50
Barbados (1)	111,557	156,442	97,314	100,366	109,435	133,267(4)	104,502	119,396	133,772	111,233	78,227	152,730	158,184
British Guiana	207,687	191,446	152,105	177,043	202,897	176,131	132,604	149,559	154,957	169,035	163,516	182,651	191,301
British Honduras	..	—	1,129	1,448	1,447	1,001	1,025	449	881	1,084	1,055	2,108	1,461
East Africa	55,835	57,754	59,341	69,384	76,915	76,860	59,797	57,564	61,953	64,234	85,440	82,246	75,882
Fiji..	136,915	131,869	120,088	109,556	111,132	86,988	82,160	54,482	95,831	109,618	142,857	137,823	120,807
Jamaica	118,318	117,945	99,285	154,588	154,282	165,672	151,854	152,252	177,875	170,200	192,921	236,662	272,716
Leeward Islands (Antigua and St. Kitts) ..	50,411	59,137	44,862	53,936	54,910(3)	53,749(5)	43,899(6)	49,136	59,434	56,968	41,750	55,260	71,567
Mauritius	311,100	293,721	246,762	320,791	325,654(3)	305,812(4)	196,487(7)	156,457	186,912	291,395	357,508	403,292	409,468
Trinidad and Tobago	133,923	135,010	92,185	130,128	105,250	70,917	74,356	78,664	109,603	110,129	115,983	159,111	146,508
Windward Islands (St. Lucia and St. Vincent) ..	10,200	9,009	9,553	11,238	9,751	7,546(4)	8,987(8)	7,080	6,901	7,737	11,582	11,153	13,200
Total	1,135,946(2)	1,152,335	922,623	1,128,478	1,151,672	1,077,944	855,670	825,039	988,119	1,091,632	1,190,839	1,422,984	1,461,093

(1) Figures include the sugar equivalent of fancy molasses.
(2) Excluding Britsh Honduras.
(3) Calendar year 1942.
(4) Calendar year 1943.
(5) Antigua figure is for calendar year 1943.
(6) Antigua figure is for calendar year 1944.
(7) Calendar year 1944.
(8) St. Vincent figure is for year ending 31st May, 1944.

(Figures from the Statistical Bulletin of the International Sugar Council.)

With the outbreak of war, in 1939, the Agreement virtually ceased to operate, but when it expired in 1942 it was prolonged by Protocols, the first lasting for two years and the subsequent ones for one year each, by which the International Sugar Council was kept in being, largely as an instrument to watch the statistical position and to consider post-war conditions. Since the end of the war the Council has been studying the conditions under which the conclusion of a new international agreement would be desirable and, more recently, the form which such an agreement might take. The United Kingdom Government delegation to the Council now includes Colonial representatives.

At the outbreak of war in 1939, the Ministry of Food became the sole importer of sugar for the United Kingdom, a position which still obtains (1951). Arrangements were made under which the Ministry purchased all the sugar which the Colonies could export ; prices were negotiated for a year at a time and were increased as costs of production rose. The Ministry of Food was also purchasing other Commonwealth sugar exports and arranged shipment not only to the United Kingdom but also to Canada and other territories, including non-producing Colonies, for which they had undertaken to arrange supplies.

The system continued after the war. As world markets became more active again, it became clear that the negotiated Commonwealth price had fallen behind. In 1947 an important innovation was made. The price paid in 1946 had been £19 10s. 0d. per ton. (Following the war-time practice this price included the pre-war elements of freight and insurances, subsequent increases being paid by the Ministry ; this basis of price continues.) In 1947 a substantial increase of £4 15s. 0d. was agreed but, to avoid dangers of inflation, to insure the future of the industry, and to ensure that war-time arrears in maintenance of capital equipment were made up, reserve funds were set up in the Colonies under local legislation for price stabilisation, capital rehabilitation and labour welfare. The provisions varied slightly with local circumstances but the general principle was the payment of fixed sums on each ton of sugar exported to the various funds. The standard rates of contribution were : to price stabilisation £1 5s. 0d. ; to capital rehabilitation, in most territories, £1 ; to labour welfare, in most territories, 10s. The price was increased to £27 5s. 0d. in 1948, to £30 10s. 0d. in 1950 and to £32 17s. 6d. in 1951. Contributions to the funds have been maintained. Local arrangements for the employment of the funds vary from territory to territory.

After the war, Colonial sugar producers became anxious lest pre-war marketing conditions should return. In 1948 the United Kingdom Government undertook to find a market in the United Kingdom or elsewhere in the Commonwealth for all sugar exported from the Colonies, Australia and South Africa until the end of 1952. One of the factors in fixing prices was to be world market trends. Colonial producers nevertheless felt they must seek greater security. As a result long-term arrangements were negotiated during 1949 and 1950 between the United Kingdom Government, the exporting Colonies, Australia and South Africa. The arrangements covered an initial period of eight years up to the end of 1957. This has since been extended to the end of 1958. Limits were laid down, above which for the time being producers should not plan to export. Up to the end of 1952 the United Kingdom Government, in pursuance of its undertaking of 1948, would continue to buy all exports, but the price was to be based on the principle of assuring reasonable remuneration to efficient producers. After then, i.e., between 1953 and 1958, the United Kingdom Government would buy certain quantities at prices guaranteed to be reasonably remunerative. It was hoped that there would be room in the preferential markets of the United Kingdom and Canada for the balance of Commonwealth exports but it would have to compete with other sugar offered ; that is, it would find a market if it was offered at the world price plus preference. The maximum amounts to be exported each year were (in long tons, raw value) :—

COMMONWEALTH SUGAR AGREEMENT: AGREED QUANTITIES

(Long Tons ; Raw Value)

	To be sold to the U.K. at guaranteed prices	*To be offered competitively*	*Total—export limit*
British West Indies and British Guiana	640,000	260,000	900,000
British Honduras	18,000	7,000	25,000
Mauritius	335,000	135,000	470,000
Fiji	120,000	50,000	170,000
East Africa	5,000	5,000	10,000
Australia	300,000	300,000	600,000
South Africa	150,000	50,000	200,000
Commonwealth totals	1,568,000	807,000	2,375,000

It was estimated that these arrangements would leave a market in the United Kingdom for at least 225,000 tons of foreign sugar each year on the assumption that, when sugar rationing ceases in the United Kingdom, consumption would settle down at 2,550,000 tons a year. The Commonwealth arrangements were to be reviewed in 1953. If consumption proved to be above the estimate, the United Kingdom Government would offer to increase the guaranteed quantities at least proportionately.

Subsequently the New Zealand Government asked the United Kingdom Government to supply 75,000 tons of sugar annually from 1953 to 1957 inclusive, out of the quantities to be purchased by the Ministry of Food at guaranteed prices. The United Kingdom Government agreed and as a result the total quantity of sugar which it undertook to buy at guaranteed prices (column 2 in table above) was increased to 1,643,000 tons, the quantities to be purchased from individual territories or areas being increased to the following amounts :—

British West Indies and British Guiana	670,000 tons.
Mauritius	351,000 tons.
Fiji	125,000 tons.
Australia	314,000 tons.
South Africa	157,000 tons.

The export limits remain unaltered.*

SUGAR PRODUCTS OF THE COLONIAL TERRITORIES OTHER THAN RAW SUGAR

Refined Sugar. As already indicated the great bulk of the sugar manufactured in the Colonies is raw sugar for export. The larger West Indian Colonies produce higher grades, e.g., " plantation whites " and " washed greys " for local consumption. In Kenya and Tanganyika some ten factories produce refined sugar for local consumption and export. Mauritius produces white sugar nearly as pure as fully refined sugar. Hong Kong, although it is not a producer of raw sugar, had before the 1939-45 war a quite considerable refining industry, raw sugar being obtained mainly from Java. The refining company's plant was completely destroyed during the Japanese occupation, but the factory commenced operating again in 1950.

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* For later developments, see page 71.

A number of important by-products are obtainable from sugar-cane. The most notable of these, with the uses to which they are put, are given below in the order of the stages of manufacture at which they are produced :

(1) **Cane tops,** the green leaves and tops of the stems cut off the cane in the field, form a valuable fresh food for cattle and several sugar estates in the Colonies run dairy farms in connection with the estates.

(2) **Cane trash,** i.e., the dried cane leaves, is used for cattle bedding and sometimes for mulching the soil. Burnt trash is often used as a fertiliser.

(3) **Bagasse** (also known as Megasse) is the fibrous residue coming from the mills after the juice has been crushed out. It is normally used for fuel in the factory, many factories using no other fuel. Other uses are in the manufacture of a cattle food called molascuit, in which molasses is mixed, and as a mulch in the fields. Bagasse is also used for the production of fibre board and insulating material ; there are no plants operating in the Colonies but bagasse is exported from Trinidad for these purposes to the United Kingdom. It can also be used as a raw material for paper, artificial silk and charcoal, and as a constituent of certain explosives. Research is being carried out at present into further possible uses to which bagasse might with advantage be put.

(4) **Filter cake,** the sediment yielded by certain purifying processes before concentration of the juice, is normally used locally as fertiliser particularly on soils deficient in phosphate, but various substances, for instance wax, can be extracted from it.

(5) **Final molasses,** which must not be confused with the " fancy molasses " referred to in the next paragraph, and is generally referred to simply as " molasses," is the viscous liquid remaining after separation of the crystalised sugar ; it contains a fairly high percentage of uncrystallisable sugars and other valuable constituents. The uses to which final molasses can be put are varied and there have been recent important developments in this field. The most important by-products from molasses are fermentation products (see below). In addition, it can be used for refinement into treacle and other syrups ; on certain soils, notably in Mauritius, it can be employed as a fertiliser. It can also be used as a constituent of cattle food.

A special kind of molasses known as **" fancy molasses "** is manufactured, mainly in Barbados, and sold for direct human consumption. Unlike final molasses, this is made direct from the cane juice before any sugar has been extracted. It is not a by-product but an alternative to sugar and is composed of " invert sugars " which will not crystallise. The market for fancy molasses is practically confined to Canada and the United States of America. Exports from the British West Indies are usually of the order of 20,000 to 25,000 tons per annum.

Final molasses also has a number of important manufacturing uses. **Rum,** which is obtained by the fermentation and distillation of molasses, is produced in Jamaica, British Guiana, Trinidad and Barbados both for local consumption and for export, and in Mauritius for local consumption only. The proceeds from the sale of rum are of considerable importance to the sugar industry in several West Indian Colonies. **Alcohol** for gin making and for industrial purposes is exported from a number of Colonies, notably Mauritius.

Molasses is also exported as such for the manufacture of industrial alcohol overseas. Before the war molasses was a cheap material for the production of industrial alcohol by means of fermentation and could compete favourably with industrial alcohol produced by synthetic processes. In the later war years and immediately afterwards molasses prices were high, but they have since fallen severely.

According to the type of micro-organism used in the fermentation process and the conditions of fermentation, a wide variety of chemical products can be obtained from molasses. Two important **chemical by-products** are citric acid and lactic acid. Citric acid, which is produced from sugar, is well known for uses in the soft drinks industry, etc., but has also important potential applications, in the form of its esters, as a plasticiser. The chief technical method at present employed for the manufacture of lactic acid is the so-called " lactic fermentation " of sugar. For this process molasses is the most frequently used source although starch (potato or corn) can be used if broken down to sugar by acid or malt. The acid can also be prepared by the action of alkali on a wide range of carbohydrate and related material. The latter method has recently been improved by Haworth, Gregory and Wiggins in the Birmingham laboratories. They have shown that a chemical method involving the treatment of sugar with lime might have advantages in the Colonies, since the bacterial method needs a large amount of space and operational time, apart from difficulties of using bacteria in the tropics.

Another very important process applied to molasses is the acetone-butanol fermentation. Apart from their own value as solvents a large number of chemicals can be obtained from both acetone and butanol. A particularly interesting substance formed from sugar by the action of certain micro-organisms is dextran. Clinical trials have shown that dextran can replace blood plasma to approximately 50 per cent, and a dextran blood plasma substitute is now being manufactured from sugar and sold in the United Kingdom.

The manufacture of **baker's yeast,** using molasses as the growing medium, is of importance, and 24,000 tons of molasses are used annually for this purpose. **Food yeast** is made from molasses in Jamaica by Colonial Food Yeast, Ltd. ; sales during the year 1949-50 amounting to 151 tons.

COMMONWEALTH SUGAR AGREEMENT*

The U.K. Minister of Food and representatives of the Commonwealth sugar producers signed a multilateral agreement in December, 1951, based on the understandings described on page 70. British Honduras and the East African Territories did not sign the agreement, but provision was made for their accession later, and also for that of St. Vincent with a quota of 1,500 tons. The Minister of Food will cease to be responsible for the sale of Commonwealth sugar to Canadian refiners after the end of 1952. Commonwealth producers will then resume direct contact with their Canadian customers through normal trade channels.

A further review of export quotas, including the amount of sugar to be purchased at the negotiated price, will be undertaken in 1953 in the light of all the circumstances at that time. The Commonwealth price for 1952 was fixed at £38 10s. a ton. The agreement was extended to the end of 1959.

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* See page 70.

TANNING MATERIALS

Tanning is the process by which raw skins and hides are converted into leather by being soaked in a solution containing special tanning materials which harden the hide.

The tanning materials of vegetable origin consist of root, wood, bark, leaves or fruits, which contain tannin, the important constituent, in sufficient quantity to be of economic interest. The natural product may reach the tanner in the raw state, or a concentrated extract may be manufactured locally for export. The tendency to-day is for the production of extracts, as this procedure saves freight and relieves the tanner of the trouble of extraction.

The principal sources of vegetable tanning materials are *quebracho*, a hard timber native to the Argentine and Paraguay; *wattle* grown primarily in the Union of South Africa, and also in Southern Rhodesia, East Africa, French Morocco and Brazil; *mygrobalans*, the fruit of an Indian forest tree; *valonea*, obtained from the acorn crops of the Valonea Oak in Greece and Turkey; *chestnut*, widespread in Southern Europe and the U.S.A.; *gambier*, obtained from a shrub in South-East Asia; *sumach*, grown primarily in Sicily and Cyprus; and *mangroves*. The materials are employed in the production of sole, belting, harness and upholstery leather and for some classes of fancy leather.

Synthetic tanning materials have also been used on a small scale for many years. They are chiefly manufactured from sulphate lye, a by-product of the wood pulp mills. Their main use has been in the light leather trade, but recent developments have shown that they can be used as auxiliaries and, to a limited extent, to replace vegetable tanning materials for heavy leathers. The substitution of synthetic for vegetable tans depends primarily upon whether low-cost raw materials for the synthetic products become available, since vegetable tanning materials are comparatively cheap. Certain minerals, especially chromium salts, have also been used for tanning leather but all mineral tans suffer from the disadvantage that they do not by themselves impart the necessary solidity to the leather and need to be associated with some other filling substance.

Owing to the war-time consumption of quebracho for fuel, and the serious spread of disease among the chestnuts of the U.S.A., the standard vegetable sources of supply have been depleted and there is some risk of a world shortage of vegetable tanning materials in the next 20 years or so if alternative sources of supply are not developed.

In 1949 the United Kingdom imported 80,000 tons of tanning extracts worth £3 million, of which 50 per cent came from South Africa, 20 per cent from other British countries (including the Colonies) and 10 per cent from the Argentine. The United States imports about 80 per cent of its total requirements of natural tanning materials, which amount to some 120,000 tons per annum.

Wattle and mangrove bark are the two chief tanning materials produced in the Colonies.

WATTLE

Wattle, which is the most valuable and extensively used tanning material produced in the British Commonwealth, is derived from species of *Acacia* trees of which the most important commercially is *A. mollissima* Willd. The wattles or mimosas as they are often called are of Australian origin. Colonial supplies come almost exclusively from Kenya and Tanganyika. In Kenya the area under wattle on European estates in 1950 was 46,000 acres. The wattle area in Native reserves is about 120,000 acres. Both wattle barks and wattle extract are exported, and recently there has been increased interest in the local manufacture of the extract, a new factory for its production having started work early in 1950, bringing the number of factories in the Colony engaged in these operations up to three. In 1949 exports of wattle bark from Kenya were 5,915 tons valued at £111,157, and wattle extract 21,986 tons valued at £884,841.

Wattle bark is exported from Tanganyika and in 1949 the quantity was 3,914 tons valued at £104,218. The Colonial Development Corporation plans to plant 30,000 acres with wattle in the Njombe district, and the scheme provides for the eventual manufacture of the extract on the spot.

MANGROVE

Mangrove is the name given to a number of trees most of which belong to the natural order *Rhizophoraceae*. The trees are noted for their abundance and rapid growth and are widely distributed in the tropical Colonies, inhabiting tidal areas and muddy swamps close to the sea-shore. All parts of the tree contain tannin, but only the bark is of commercial interest. The mangroves best known as yielding barks suitable for tanning include species of *Rhizophora*, *Bruguiera* and *Ceriops*. The tannin content of their barks varies widely not only between different species of trees but also between the same species in different localities. The principal Colonial source of supply of mangrove bark is East Africa and the exports for 1950 were as follows:

MANGROVE EXPORTS, 1950

	tons	£
Tanganyika ..	857	12,236
Kenya	203	4,183

Extensive areas of mangroves exist in West Africa and the bark is used locally for tanning but there has been no export of the product.

In Malaya there is an entrepôt trade but imports exceeded exports in 1949 by 1,243 tons.

In North Borneo and Sarawak a solid extract known as mangrove cutch is prepared from mangrove bark. Following the Allied re-occupation steps were taken to rebuild the damaged cutch factories in these countries and in the latter half of 1948 two modern, efficient plants were in production, one in North Borneo and the other in Sarawak. The exports of cutch for 1950 were:

MANGROVE CUTCH EXPORTS, 1950

	tons	£
North Borneo ..	4,120	144,100
Sarawak	1,768	134,300

Prior to the war, Brunei was an important producer of mangrove cutch but the factory was completely destroyed in air attacks.

Originally the term "cutch" was applied to the solid extract derived from the heartwood of *Acacia catechu* produced in India and Burma, but it is now commonly used in the United Kingdom to designate the extract prepared from mangrove bark. To avoid confusion it should be distinguished by adding the word "mangrove."

The following tanning materials are also produced in the Colonies:

GAMBIER

Gambier is the solid extract made from the leafy twigs of a climbing shrub *Uncaria gambier* cultivated in Malaya and the Malay Archipelago, also in Java. Formerly quite extensively grown in Malaya as a catch crop, gambier is at present only of minor importance, the acreage having fallen in 1948 to 387 acres from 4,000 acres in 1940. The production of gambier requires an abundance of cheap labour and special conditions of soil and climate. Net exports of cube gambier from Malaya in 1949 were 283 tons (£36,256). Of block gambier, Malaya was a net importer in 1949 but the quantities concerned were very small; the net exports of round gambier were 53 tons (£13,044).

SUMACH

Sumach is obtained from the shrub *Rhus coriaria*, a native of Mediterranean countries, Sicily being the chief source of supply. Cyprus is the only producer in the Colonies. The product is marketed in the form of the dried, finely ground leaves and in 1950 the exports were 389 tons (£8,191). The Cyprus product is of high quality. *Rhus coriaria* is useful as a soil fixer with which to combat erosion of the hills and mountains in the Colony and the collection of the leaves must therefore be controlled to prevent the destruction of the plant.

PINE BARK

There is a small export of the ground bark from Cyprus, which in 1950 amounted to 129 tons (£1,354).

There are various tanning materials of local importance in the Colonies. In Nigeria, the pods of *Acacia arabica*, known as Bagaruwa, are used in the production of tanned sheep and goat skins for export. In other West Coast countries the pods also find application, and are sometimes exported as Gambia pods.

TEA

VARIETIES AND METHODS OF PRODUCTION

The different varieties of tea are all regarded as derived from the single botanical species *Camellia thea*. Broadly speaking there are two main groups of tea in cultivation, the slow growing small-leaf China type and the large-leaf India type, with a variety of hydrids intermediate in character.

The tea gardens of the world lie roughly between 42° N., and 13° S. Tea is cultivated at altitudes from sea level to roughly 8,000 ft. Much of the world's tea is grown with annual rainfalls around 100-150 inches ; extremes range from about 50 to 60 inches to some 400 inches. In Kenya tea districts, 56 to 70 inches of rainfall are spread over some 210 days, while in Uganda and Tanganyika tea is successfully grown with a rainfall as low as 50 inches in 110 days. Tea in Mauritius receives some 125 to 160 inches over 220 to 300 days. Generally, the highest yields are obtained at the hot, lower, wetter elevations, while high quality has been associated with colder conditions and the greater altitudes. However, much depends on cultural practice, manuring, and climatic factors such as prevalence of mists.

Climate is probably more important than soil, as tea grows successfully on soils ranging from light sands to heavy clay, although well-drained soil is desirable. The best growths are normally found on the more acid soils, though much tea is grown—e.g., in Uganda—on land with a pH of 6·0 to 6·5. Such nearly neutral tea soils do not contain excessive lime.

Tea has normally been propagated from seed. The flowers require cross-pollination ; for purity of strain isolated seed gardens have been required. As a result of research the technique of raising rooted cuttings has been so improved that it can be used commercially, and offers a promising method of obtaining superior planting material from suitable mother trees.

Left to itself the tea plant would grow into a tree 40 to 50 feet in height. In cultivation tea is maintained as a bush from two to four feet high by pruning, which also causes the plant to produce succeeding crops of fresh young leaves (the " flush "). Planting distances vary from about three to five feet square ; triangular planting is also used. There may be some 3,000 bushes per acre. Light overhead shade is commonly provided, but some planters consider the provision of windbreaks more important. Planting is often on the contour, frequently with terracing and pits to check erosion. Leguminous ground covers may be used.

Tea is affected by several pests and diseases. Of very recent years blister blight, long known in north-eastern India, has given serious trouble in south India and Ceylon. Nyasaland has experienced tea yellows, a nutritional deficiency disease which in the early stages responds to the application of sulphur or sulphate of ammonia ; this disorder is also known in Tanganyika.

Tea comes into production in three or more years from planting, according to climate, and is in full bearing in some six to ten years. In harvesting tea the youngest leaves of the flush are plucked. In normal plucking, two leaves and a bud are harvested. Fine plucking involves the removal of less than two leaves, and coarse plucking of more. Yield varies with climatic conditions and estate practice, rising with the coarseness of the plucking. Anything from 600 to 1,000 lb. of " made " tea per acre would be normal.

The gathered leaf is taken to the factory for manufacture. Black (or fermented) tea is produced everywhere, and in Commonwealth countries almost exclusively, though green tea is made in some Colonial territories, e.g., in Malaya. Other teas are : green (or unfermented) tea, made chiefly in China and Japan ; Oolong (lightly fermented) teas from China and Formosa, and miscellaneous products, such as brick tea, again principally a Chinese product.

In the manufacture of black tea the leaf must be withered, rolled, fermented and fired. On reaching the factory the leaf is spread on racks to attain a flaccid condition suitable for rolling by the evaporation of sufficient moisture. This process, according to temperature and humidity, may occupy 12 to 24 hours, or longer, In rolling the leaf juices are released and cover the leaf ; the process also imparts the characteristic twist of manufactured tea. The leaf from rolling or re-rolling is sifted and taken to the fermenting room, where it remains for an hour or so before passing to the drier (firing). From the drier the tea is black in colour and except for sorting and sifting the product is in its final form. During the process of manufacture there is a loss in weight from the leaf of approximately 75 per cent. Experimental work is in progress which may in time lead to modifications in the manufacturing process, e.g., the production of unwithered tea. In general, tea manufacture is more suited to the large, well-equipped factory. A factory handling the crop of approaching 1,000 acres is usually the most economic unit. Small-holders' tea is commonly handled by an estate factory.

Green tea is prepared without withering. The leaf is placed in a large " steamer " and heated to about 160° F., which makes it soft and pliable for rolling and prevents fermentation by inactivating the enzymes.

The tea industry is well served by research stations, i.e., at Tocklai in Assam, in Ceylon and in Indonesia ; an East African Tea Research Institute has been established.

The bulk of tea produced for export is black. Recognised trade descriptions of black tea (omitting certain specialised types and " flowery " descriptions) are : Orange Pekoe, Broken Orange Pekoe, Broken Pekoe, Pekoe, Pekoe Souchong, Broken Pekoe Souchong, Souchong, Fannings and Dust. These grades are produced by a sorting process and relate to the size and appearance of leaf. Of recent years more tea has been handled in the broken grades and less in the leaf grades.

For export tea is packed in plywood chests and half chests lined with aluminium foil or paper backed by lead to prevent increase in the moisture content. A standard chest takes from 115 to 130 lb. of broken tea and from 106 to 118 lb. of leaf tea. Tea as sold to the consumer is normally a blend of several grades, the quality of which depends on the proportions of fine, or quality, and common or filler, teas included. The finest flavoured Commonwealth tea is Darjeeling. Colonial tea gardens produce a variety of qualities and grades.

WORLD PRODUCTION AND CONSUMPTION

The following table, with the qualifications indicated in the notes and subsequent text, shows the acreage devoted to tea, together with production and exports, for the principal tea producing countries in 1938 and 1949.

There are no authoritive estimates of acreage or production in China which is probably the world's largest producer. One estimate puts China's production in the immediate pre-war period at not less than 500 million lbs., and in 1948 at a little over 100 million lbs. ; on this basis the area planted with tea in China may have been of the order of 1,000,000 acres or more in 1938 and some 200–250,000 acres in 1948.

The first and second International Tea Agreements, 1933-38 and 1938-43 respectively, the latter extended for the duration of hostilities and (in general) some two years thereafter, regulated acreages devoted to tea and exports of tea and of tea seed by the principal exporting countries (India, Ceylon, and the Netherlands East Indies) which

TEA : WORLD PRODUCTION AND EXPORTS

	Acreage (000 *acres*)		Production (*Million lbs.*)		*Exports* (*Million lbs.*)	
	1938	1949	1938	1949	1938	1949
Colonial Territories						
Nyasaland	18	23	11	13	10	13
Kenya	14	18	11	11	9	7
Tanganyika	5	9	1	1	3	2
Uganda	3	6	—	3		
Malaya	6	10(*a*)	1(*a*)	2(*a*)	1	2
Other Commonwealth						
India	834	777	452	586	351	487
Pakistan		75(*d*)		46		27
Ceylon	555	556	247	299	236	298
South Africa	2	1	1	—	—	—
Foreign						
China	..	..	..	..	92	45
Formosa	110	99	27	21(*d*)	22	
Japan	98	63(*d*)	121	65	37	16
Indonesia (*b*)	511	185	178	60	159	48
Soviet Union (*c*)	120	..	19	150(*d*)	—	—

— = nil or insignificant ; .. not known.
(*a*) Estates only, i.e., excluding small holdings.
(*b*) Estates only in 1949.
(*c*) Unofficial estimates.
(*d*) 1948 figure.

were joined with some modifications in 1934 by Nyasaland and the East African Territories, and in 1936 by Malaya. Export quotas were increased during the early war years to a level intended to ensure production without restriction while maintaining the framework of the scheme. Malaya withdrew from the scheme in 1946, the East African Territories in 1947, and Nyasaland in 1949. On the termination of the Interim Producers' Agreement, 1948-50, the major producing countries, being now India, Pakistan, Ceylon and Indonesia signed a new agreement in May, 1950, to cover the period to 1955.

The bulk of world trade in tea is within the Commonwealth, and of all tea entering world trade more than half is retained in the United Kingdom. Other consumers of major importance are the United States of America, Australia, Canada, Eire, New Zealand and the Netherlands.

Before the war London was the centre of an important re-export trade in tea. In wartime, however, world distribution of tea was made in accordance with the recommendations of the Combined Food Board, and tea was shipped direct from producing to consuming countries, the Ministry of Food in the United Kingdom acting on behalf of the Board. Handed over to the International Emergency Food Council in 1946, the international allocation of tea ceased in 1947. The tea auctions at Calcutta and Colombo reopened early in 1947. In the United Kingdom rationing and price control of tea continue in force and bulk purchase by the Ministry of Food continued until the reopening of the London Tea auctions in April, 1951.

COLONIAL PRODUCTION

Nyasaland and the East African territories are the principal Colonial producers of tea. Other Colonial tea producers are Malaya and Mauritius.

In Nyasaland where the industry has been operated on a commercial scale for over 50 years, tea is in value the second crop of the territory, accounting for over 30 per cent of total exports. It is grown exclusively on European estates in the southern province. The crop is almost entirely exported. During and since the war most of the Nyasaland exports have been sold to the Ministry of Food.

Tea was first introduced into Uganda in 1900. Further importations of plants and seeds were made in 1904 and 1906 and in subsequent years, but the first real progress was made in 1909 when some Assam seed was imported direct. Seedlings from this seed were raised on the Mabira Forest Rubber Company's estate, and most of the present day plantations in Uganda have been planted with the progeny of this seed. In Kenya the Caine brothers at Limuru are generally given the credit for starting tea growing; they imported the Manipuri hybrid variety from Assam in 1904, but although small plantations were later established at Limuru, Kericho, and Kaimosi, it was not until 1925 that any large scale planting was begun. In contrast to Nyasaland only part of the East African output is exported, since there is a considerable and expanding domestic market within the region. Consumption in the three territories has increased considerably compared with pre-war :—

TEA CONSUMPTION IN EAST AFRICA

	1938 '000 *lb.*	1950 '000 *lb.*
Kenya	1,160	4,840
Uganda	650	1,690
Tanganyika	510	1,850

From International Tea Committee, Bulletin of Statistics, June, 1951.

This increase in local consumption is mainly due to the growth of the tea-drinking habit among Africans. There is an important trade in tea between the three territories; Kenya in particular meets part of the requirements of Tanganyika where mainly tea of a high quality suitable for export is being produced, while Kenya produces more of the cheaper qualities which are readily absorbed by the local African market. Since 1947 when participation in the international regulation scheme was terminated, a fair amount of new planting has been licensed. The area under tea in 1950 was :—

	Acres
Kenya	18,547
Uganda	6,406
Tanganyika	9,022

Since 1947 new planting has been held up by inability to obtain tea seed from the countries supporting the international scheme, but this difficulty is being increasingly overcome by local production of seed. Vegetative reproduction also holds out some promise of helping to solve this problem.

Tea nurseries have been established and research is being carried out at the Tea Experimental Station at Mlanje in Nyasaland, and a new Tea Research Station has been opened in Kericho, the principal tea growing district in Kenya. Agricultural Departments are encouraging planters to adopt soil conservation measures, such as contour bunding and terracing which are essential under African conditions, since tea is a crop which tends to bring about soil erosion.

In Malaya tea was first planted in 1925, but had been produced on a commercial scale for only a few years prior to the war. Most of the tea is grown on estates but some is produced by small holders. A large part of the output is consumed locally.

Tea is grown for local consumption in Mauritius. The area under tea, which before the war was about 150 acres, has been extended in recent years to over 2,000 acres. Production rose from 129,000 lb. in 1938 to 749,000 lb. in 1950. It is hoped, with further expansion and improvement in quality, to build up an export market. A tea experimental station is being established, and the reorganization of the industry on the manufacturing side is under consideration.

TIMBER

Over half the timber felled throughout the world is probably used as firewood, but very little firewood enters world trade ; wood is not an economical fuel, but in the under-developed regions of the world it is frequently the only available source of heat and energy. In addition very large quantities of timber are used locally in the producing countries, so that only 15 per cent of world production is exported, and a great part of this goes to neighbouring countries. Timber is chiefly exported as pulp wood, wood pulp or pulp products on the one hand or as lumber on the other hand. The various " pulps " are for use in the making of newsprint, paper, patent compositions, cellulose, rayon, fibre boards, etc. Lumber may be said to cover unprocessed wood in the round, rough-hewn or not, or wood roughly sawn lengthwise or squared with the axe ; it is the form in which most timber for building, furniture, etc., enters world trade. Remaining supplies are classified as " other industrial

Trade Name	*Botanical Name*	*Countries of Origin*	*Possible Use**	*†Lbs. per cub. ft.*
Abura	*Mitragyna stipulosa*	Gold Coast, Nigeria	11, 12	34
Afara, Nigerian	*Terminalia superba*	Nigeria	2	35
Agba	*Gossweilerodendron balsamiferum*	Nigeria	2, 5, 8, 11, 12	30
Avodire	*Turraeanthus africana*	Gold Coast	5, 8, 12	31
Ayan, Nigerian	*Distemonanthus benthamianus*	Nigeria	1, 6, 9	45
Satinwood, Nigerian				
Blackwood, African	*Dalbergia melanoxylon*	Kenya, Tanganyika	9	75
Camphorwood, Borneo	*Dryobalanops*	North Borneo, Sarawak, Malaya	4, 7, 8, 10, 11	49
Kapur, Malayan				
Camphorwood, East African	*Ocotea usambarensis*	Kenya, Tanganyika	1, 4	36
Cedar, British Honduras	*Cedrela mexicana*	British Honduras	2, 8	30
Cedar, East African Pencil	*Juniperus procera*	Kenya, Tanganyika	1, 2, 9	36
Cedar, Kenya		Kenya	2	
Cedar, Gold Coast	*Entandrophragma cylindricum*	Gold Coast	1, 6, 7	40
Sapele		Nigeria		
Dohoma	*Piptadenia africana*	Gold Coast	10	47
Ekhimi		Nigeria		
Danta	*Cistanthera papaverifera*	Gold Coast	7, 9, 10, 11	47
Otutu		Nigeria		
Denya	*Cylicodiscus gabunensis*	Gold Coast	10	67
Okan		Nigeria		
Ebony, Nigerian and Gold Coast	*Diaspyros*	Gold Coast, Nigeria	9	—
Ekki	*Lophira alata*	Gold Coast, Nigeria	10	— 65
Emri	*Terminalia ivorensis*	Gold Coast	3, 5, 11	35
Idigbo		Nigeria		
Gedu Nohor	*Entandrophragma angolense*	Gold Coast, Nigeria	1, 6	38
Mukusu		Uganda		
Greenheart	*Ocotea rodiei*	British Guiana	4, 7, 8, 10	65
Guarea, Nigerian and Gold Coast	*Guarea*	Gold Coast, Nigeria	1, 2, 6	37–40
Pearwood, Nigerian		Nigeria	2	
Iroko	*Chlorophora excelsa*	Gold Coast, Nigeria, Tanganyika and Uganda	1, 2, 4, 6, 7, 10, 11, 12	41
Jelutong	*Dyera costulata*	Malaya, North Borneo	10	29
Kauri, Fiji	*Agathis vitiensis*	Fiji	5, 8, 9, 10, 11, 12	33
Keruing, Borneo and Malayan	*Dipterocarpus*	Malaya, North Borneo Sarawak	4, 7, 10, 11	46
Kussia	*Sarcocephalus diderrichii*	Gold Coast	4, 7, 8, 10	47
Opepe		Nigeria		
Lignum Vitae	*Guaiacum*	Bahamas, Jamaica	10	78
Mahogany, Axim	*Khaya*	Gold Coast	1, 2, 5, 6, 8, 9, 10, 12	35–45
Mahogany, Benin		Nigeria		
Mahogany, Half Assinee		Gold Coast		
Mahogany, Lagos		Nigeria		
Mahogany, Sekondi		Gold Coast		
Mahogany, British Honduras	*Swietenia macrophylla*	British Honduras	1, 2, 5, 6, 8, 9, 10, 12	34
Mahogany, Uganda	*Khaya anthotheca*	Uganda	1, 5, 6, 8, 9, 12	36
Mansonia	*Mansonia altissima*	Gold Coast, Nigeria	1, 2, 5, 12	38
Meranti, Malayan Yellow	*Shorea*	Malaya	3, 8	38
Meranti, Red		Sarawak	1, 5, 8, 11, 12	34
Perawan				
Merbau, Borneo	*Intsia*	North Borneo	6, 7, 9, 13	50
Mufumbi, Uganda	*Entandrophragma utile*	Uganda	1, 6	40
Obeche	*Triplochiton scleroxylon*	Nigeria	2, 3, 5, 8, 9, 11, 12	24
Wawa		Gold Coast		
Olive, East African	*Olea hochstetteri*	Kenya	7, 9	56
Podo, East African	*Podocarpus gracilior*	Kenya, Tanganyika	5, 9, 10, 12, 13	32
Rosewood, British Honduras	*Dalbergia stevensonii*	British Honduras	2, 9	60
Selangan Batu	*Shorea*	North Borneo	8, 10	52
Seraya, Borneo red			1, 5, 8, 11, 12	35
Seraya, Borneo white	*Parashorea*	North Borneo	1, 3, 5, 7, 8, 11, 12, 13	32
Whitewood, Borneo				
" Teak," Northern Rhodesian	*Baikiaea plurijuga*	Northern Rhodesia	7	57
Walnut, golden	*Lovoa klaineana*	Gold Coast, Nigeria	2	35
Walnut, Nigerian and Gold Coast			1, 2, 5, 6, 8, 9	
Wawa, Gold Coast	*Triplochiton scleroxylon*	Gold Coast	2, 3, 5, 8, 9, 11, 12	24
Whitewood, Nigerian		Nigeria		

* (1) Decorative (in the solid) ; (2) Veneers ; (3) Panel cores ; (4) Cills ; (5) Shopfitting, Superior joinery ; (6) Counter tops ; (7) Floors ; (8) Ship and boat-building ; (9) Turnery ; (10) Engineering and structural ; (11) Motor Vehicle bodywork ; (12) Handicraft ; (13) Tanks and Vats.

† Average weight at a moisture content of 15 per cent, or else air dry.

wood," and comprise pitprops, poles and posts, sleepers, box boards, plywood, etc.—in other words, wood which has undergone simple processing in the country of origin.

The most general division of timbers is into hardwoods and softwoods. The term hardwood does not imply hardness in its usual sense, but is a classification applied to woods from deciduous and evergreen broad-leafed trees belonging to the botanical group Angiosperms. Softwood is a classification applied to woods from coniferous trees belonging to the botanical group Gymnosperms. In fact, though the timber from broad-leafed trees is normally harder and heavier than that from coniferous trees, there are many exceptions, and the softest and lightest known woods are technically hardwoods.

Sixty-three per cent* of the world's output of all forms of timber in 1948 came from the northern belt of forests, mainly coniferous, stretching across Europe, the U.S.S.R. and North America. The great tropical forest belt, mainly broad-leaved, crossing Africa, South-East Asia and Latin America, produced only 34 per cent, of the total output. The percentage entering world trade from the northern forest belt was even greater.

Softwoods in 1946 accounted for 91 per cent of all timber traded internationally. The reasons for this preponderance of the northern forest belt in world trade are easily explained. Softwoods grow in homogeneous stands covering, in many cases, vast areas which are readily accessible, often by waterways, for exploitation. They are, moreover, readily worked by saw and plane. Their fibres are longer than hardwood fibres, so that they produce a better pulp for paper-making and most other purposes. They have come, therefore, to provide the raw materials for nearly all the more common uses of timber in building, furniture, etc., and for wood pulp and pulp products. Nearly all tropical forests consist of hardwood trees, but the bulk of the world's hardwood supplies comes from the temperate zone, the reason being the heterogeneous character of the forest in most tropical countries. Tropical forests are almost invariably mixed forests, made up of hundreds of different species, many of which are as yet of unknown quality, and the few marketable trees are usually scattered over a wide area, thus making their extraction expensive.

The four great timber exporting countries are Canada, Sweden, Finland and the United States of America. With Norway added, they supply practically the whole of the world's supply of the various " pulps " and between them in 1948 they provided three quarters of the lumber which entered world trade. Before the war the U.S.S.R., Latvia (now a part of the U.S.S.R.) and Poland were also substantial exporters, but exports from these territories are very much below pre-war levels and this is one of the main reasons for the world shortage of softwoods. The only tropical country whose exports are at all large in the context of world trade is Brazil, and its exports are almost entirely in the form of lumber.

Western Europe is the principal importing area of the world, with the United Kingdom as the largest importer in that region. But foreign trade in forest products is mainly intra-regional in character, not only in North America and Europe, but also in Latin America and South-east Asia. Only from Africa is the trade predominantly extra-regional; about 85 per cent of registered exports went to Europe and North America in 1948. This intra-regional character of the timber trade comes about largely through the fact that the United States, though a major exporter, is on balance a net importer on a vast scale. It imports some 60 per cent of the total world exports of the various pulps, and in 1948 its lumber imports surpassed those of the United Kingdom, traditionally the principal lumber importing country. The United States, therefore, absorbs the bulk of Canadian supplies, while the North European supplies are shared out among the other European countries.

In the light of these facts it is not to be expected that, important as timber may be in the economy of any particular colony or large as may be the total forest area of the British Colonial territories, colonial timber exports should be important in quantity in relation to world supplies. The colonies, or rather all those colonies with large forest areas, lie within the tropics, and their forests suffer the general disadvantages of tropical forests. Moreover, the forests have an important part to play in the economy of most colonies. Apart from providing an indispensable protective cover to the land against soil erosion, they are the principal source of fuel in the form of firewood. Already in some areas the demand for timber for domestic requirements coupled with the common agricultural practice of " shifting cultivation " has so eaten into the forests that forest preservation is of greater urgency than the development of the timber trade.

Nevertheless, there are a number of high-grade woods exported from the colonies for which there has long been a demand. The table on page 77 lists the more important of those woods and details their most appropriate uses.

The majority of the above are hardwoods. In the past the trade in timber from the colonies was mainly confined to a few highly valued species, such as mahogany, cedar, and greenheart. However, in the post-war years, when the currency situation has imposed restrictions on the supply of timber from dollar sources for many countries, this situation has changed to a considerable extent. Further, though interchangeability between softwoods and hardwoods is limited, it has become evident during the post-war shortage of softwoods that soft hardwoods can replace softwoods to a certain extent. It is interesting in this connection to note the changing pattern of United Kingdom hardwood imports as illustrated in the following table :—

U.K.—HARDWOOD IMPORTS

Countries of Origin	*Pre-war* 1934–38 *average*		1947		1948		1949	
	mill. cub. ft.	%	*mill. cub. ft.*	%	*mill. cub. ft.*	%	*mill. cub. ft.*	%
U.S.A. and Canada ..	25·26	55·2	13·60	41·6	7·26	20·5	4·51	12·7
British Colonies	2·72	5·9	6·59	20·2	7·72	21·8	11·58	32·5
Rest of World	17·72	38·9	12·45	38·2	20·43	57·7	19·54	54·8
Total	45·70	100	32·64	100	35·41	100	35·63	100

It must not, however, be presumed from the above that the development of colonial timber resources is dependent on a continuation of the dollar shortage. Certain colonial timbers find a ready market in the United States of America, and are " dollar earners " as well as " dollar savers " as can be seen from the following table.

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* Source : F.A.O. Yearbook of Forest Products Statistics, 1949.

VALUE OF EXPORTS OF COLONIAL TIMBER

'000 *U.S. Dollars*

	To Dollar Area			*To U.S.A.*
	1938	1947	1948	1949
Gold Coast	121	3,688	5,973	2,117
Nigeria	6	475	166	55
British Guiana	26	374	269	110
British Honduras	952	1,674	1,664	1,690
Others	—	7	4	14
Total	1,105	6,218	8,076	3,986

British Honduras is the only colony in which timber is at present the principal export. Timber has been the leading export for many years, accounting for over 50 per cent in value of total domestic exports in pre-war years and for as much as 63·5 per cent in 1948. By far the greater part of these exports has consisted of hardwoods, particularly mahogany. Mahogany which had comprised 96 per cent in value of the total timber exports in 1938, dropped to 46 per cent in 1948 but rose to 57·1 per cent in 1950. Unfortunately mahogany trees have been felled regardless of the need to maintain a steady yield of timber in perpetuity. Mahogany in the natural forest takes a great many years to mature, probably not less than 120 years from seed, and British Honduras has been exploiting its mahogany reserves at a much faster rate than these reserves can be regenerated by the unaided process of nature. A girth limit of 8 feet 6 inches has now been imposed on mahogany felled on private estates and the Forestry Department has submitted a 10-year development plan involving a total expenditure of $ B.H. 929,000. But while mahogany exports have lately tended to decrease both in quantity and in proportion to other timber exports, there has been a considerable increase in the production of softwood from the Caribbean pine forests which represent a third of the total forest area of the Colony,but which were hardly exploited before the war. The export of pine lumber amounted to 702,388 cubic feet in 1950, accounting for about 37 per cent of the Colony's domestic timber exports. Again, however, it is estimated that under existing circumstances the present rate of cutting, i.e., about 830,000 cubic feet per annum, might exhaust supplies in about 10 years. With full control, however, it might be possible to raise the extraction rate to 1,000,000 cubic feet per annum.

British Guiana, North Borneo and Sarawak are all colonies with vast areas of forest land still relatively undeveloped and of unknown potential. In each case the mixed nature of the forest and the lack of communications from the forest to the coast and in respect of adequate harbours have militated against full exploitation. In British Guiana the total forest area of 70,000 square miles can be divided into two zones—one of 14,000 square miles which, with a reasonable development in communications, can be made accessible and which, it is estimated can provide for all possible expansion of the timber industry for the next 20-30 years; and the other of some 56,000 square miles which must at present be regarded as inaccessible. A large scale plan of forestry development, which will lead to systematic extraction over a wide area, has been adopted by the Colonial Development Corporation. Starting with a pilot scheme of 93,000 acres on the west bank of the River Essequibo, the Corporation has undertaken to open up forest areas of 5,000 square miles in the Bartica Triangle. It is hoped to produce eventually 1,500,000 cubic feet of lumber a year, partly for the local market and partly for export, especially to the West Indies. In North Borneo and Sarawak the forests occupy 82 and 89 per cent of the total land area respectively. They contain hardwoods suitable for almost every purpose and development prospects are good; North Borneo, in particular, has shown considerable recovery of timber exports from the effects of the devastation caused by the war. Sarawak has a special forestry development plan.

In actual quantity of timber exported at the present time the West African territories of the Gold Coast and Nigeria are the most important. In 1949 the Gold Coast exported some 7,540,000 cubic feet of timber, nearly twice as much as any other colony. Nigeria came next with 4,795,000 cubic feet. In both colonies mahogany and a few other high valued timbers account for a high proportion of the export trade. But, while the introduction of intensive exploitation and the development of communication should lead to greatly increased production, the far larger domestic consumption places a lower limit on the export potential than in the case of the three territories mentioned above.

East and Central Africa do not play a very large part in the sum total of colonial timber exports, though, from the forestry point of view, Tanganyika is probably the most undeveloped territory in Africa and has large areas of savannah forest. Its closed forests are scattered and largely confined to the mountains. The main problem is one of communications, since, although the country is comparatively well-forested, the areas of the most valuable timber are small and, in general, far from the railways. The central railway line, for instance, runs mainly through those areas that are poorest in commercial forest. The operation of the ground-nut scheme made timber available, as a result of the clearance of large areas of land. The recent reduction in the scope of the scheme has, however, reduced this source of supply. A private firm is planning to exploit the timber resources of the Rondo Plateau in the Southern Province at the rate of 7,500 tons a year, using the new railway for evacuation. In Uganda timber supplies were greatly reduced by war-time exploitation. Timber now is by no means abundant, and without the extreme western forests, still largely inaccessible, it is estimated that the territory's timber output can only be barely sufficient for its own requirements. Before the war Kenya had a considerable surplus of timber over local requirements, but intensive exploitation during the war has seriously strained the capital reserves of the colony's most important timber. East Africa is unique in the Colonial territories in that a large proportion of its timber exports are of softwood—in 1949 Kenya exported 198,042 cubic feet of podocarpus and 214,643 cubic feet of pencil slats (from the East African pencil cedar) out of a total export of about 573,000 cubic feet, whilst almost one-third of Tanganyika's exports also consisted of podocarpus. Northern Rhodesia, though exporting small quantities of its local timber, is on balance a timber importing country, requiring large supplies of American softwoods for use in the mines in the Copper Belt.

The Federation of Malaya is the only other important timber exporting territory. It is one of the major timber producing countries in South-East Asia, and its production is capable of considerable expansion. Exports go mainly to Hong-Kong, China, Mauritius, Arabia and South Africa, but there is also a small trade in high-class hardwood lumber to the United Kingdom.

Valuable hardwood forests, but of relatively small area, also exist in Trinidad, Fiji, Mauritius and Sierra Leone, and they form an essential part of the capital assets of these territories, but none of them has a surplus of timber for export and they have to import part of their own requirements. The Bahamas have for many years exported small quantities of lumber from their forests of pine, as well as some hardwoods, to the United States, Cuba and other West Indian islands.

The following table, based on tables in the F.A.O.'s " Forest Resources of the World, 1948," shows the major forest resources of the Colonial Empire.

THE FOREST RESOURCES OF THE PRINCIPAL TIMBER PRODUCING COLONIES

The following definitions are used in this table :—

Forested Lands : Lands bearing vegetative associations dominated by trees of any size capable of producing timber or other forest products or of exerting an influence on the climate or on the water regime. Also, lands from which forests have been recently clear cut or burned, but which will be reforested in the near future.

Productive Forests : Forested lands physically capable of producing crops of usable wood.

Other Forests : Forests incapable of yielding products other than fuel because of adverse site conditions. This category includes forests of slow growth and of dwarfed or stunted form.

Accessible Forests : Accessible forests are those which are now within reach of economic exploitation as sources of forest products ; the term includes immature forests. This category includes all productive forest lands owned by corporations or individuals, all publicly owned forests covered by working plans, and other public forests not covered by working plans but considered to be accessible for exploitation now. (N.B.—It will be appreciated that a new railway or a new harbour can immediately convert a hitherto " inaccessible " forest into an " accessible " forest, and that changes, which have taken place, e.g. in Tanganyika, since the facts were assembled on which this table is based, may in some cases have modified the figures quoted.)

Inaccessible Forests : Forested lands of productive quality which are not yet economically accessible.

Softwood Forests : Forests in which 75 per cent or more of the volume of standing timber is of coniferous species.

Hardwood Forests : Forests in which 75 per cent or more of the volume is of broad-leafed species.

Mixedwood Forests : All forests which fail to comply with the specifications for softwood or hardwood forests.

Areas : In square miles.

Territory	*Total Land Area*	*Productive Forests*						*Other Forests*	*Total Forests*	
		Total Productive Forests	*Accessible Forests*				*In-accessible Forests*		*Area*	*Percentage of Total Land Area*
			Softwood	*Hardwood*	*Mixed*	*Total*				
British Honduras	8,867	6,096	104	5,942	—	6,046	50	2,054	8,150	92
British Guiana ..	83,000	54,000	—	14,000	—	14,000	40,000	16,000	70,000	87
Trinidad and Tobago ..	1,980	977	—	776	—	776	201	189	1,166	59
Gold Coast ..	91,843	35,000	—	15,950	—	15,950	19,050	27,000	62,000	67
Kenya	219,730	2,131	930*	1,201*	—	2,131	—	3,286	5,417	2
Mauritius ..	809	81	—	8	35	43	39	69	150	21
Nigeria	372,674	26,961	—	3,525	—	3,525	23,436	130,363	157,324	42
N. Rhodesia ..	282,323	21,000	—	21,000	—	21,000	—	109,000	130,000	45
Nyasaland ..	36,829	4,502	8	2,000	—	2,008	2,494	2,498	7,000	19
Sierra Leone ..	27,925	846	—	46	—	46	799	154	1,000	3
Tanganyika ..	342,706	131,563	—	19,540	1,170	20,710	110,853	19,371	150,934	44
Uganda	80,301	1,942	—	1,154	—	1,154	788	3,861	5,803	7
Cyprus	3,572	560	521	8	—	529	31	93	653	18
Federation of Malaya ..	50,850	28,340	—	7,853	—	7,853	20,486	10,749	39,089	77
N. Borneo ..	29,387	4,000	—	1,000	—	1,000	3,000	20,000	24,000	82
Sarawak	50,000	15,000	—	15,000	—	15,000	—	26,000	41,000	89
Fiji	7,040	3,695†	—	77	3,436	3,513	181	—	3,695	52

* May include some inaccessible forests.
† Includes 77 square miles mangrove forests below high-water level.

The past concentration in the colonies on " selective logging "—or the extraction of those trees of species which have for many years had a market abroad, while the majority of other species, and also less perfect trees of the former class are left in the forest—has led not only to depriving forests of their most valuable trees, but also to the neglect of vast timber resources. A sound forest policy in the future will have to find means of replacing this system of selective logging by more intensive exploitation in which every tree over a certain girth is removed, while sufficient seed-bearing trees are left behind to ensure natural regeneration. Steps to that end have already been taken in Nigeria and British Guiana. In Nigeria concessionaires are now required to extract all marketable timber from a block of forest within a specified period and before being permitted to start operations on a new block ; at the end of that period the block is handed over to the Forestry Department for regeneration. In British Guiana the large concessions obtained by the Colonial Development Corporation likewise provide for intensive exploitation. The sustained success of this policy in the colonies just mentioned, as well as its extension to others where it is equally essential, will largely depend on the possibility of opening up markets for secondary timbers.

But more intensive exploitation and increased exports of colonial timbers are equally dependent on the provision of improved communications and equipment and the establishment of modern sawmill machinery. Much of colonial timber at the present time is exported in the round. This method is wasteful. Since only about 50 to 60 per cent of a log is recoverable in the form of sawn timber, it pays to export only the most perfect logs of accepted species ; the remainder are at present left to rot in the forests although possibly containing substantial quantities of good timber if the log were sawn before shipment. Round timber is also wasteful of shipping space. Not only would a fuller utilisation of accepted woods be obtained by processing in the colonies, but the increased exploitation of other timbers, whether for export or for the local market, is dependent on facilities being available for local sawing of logs and possible conversion into veneers and plywood.

A few territories, notably Malaya and Singapore, had built up saw-milling industries before the war. Some of the mills, particularly in Singapore, have modern equipment. In North Borneo and Sarawak, where saw-mills of varying efficiency operated before the war, most of the mills were destroyed and reconstruction is proceeding slowly. But in most colonies, especially in Africa, there were with few exceptions only rare and rather primitive saw-mills. At Sapele in Nigeria a modern saw-mill was erected in 1935 ; it has recently been replaced by a larger and even more modern mill to which a plywood plant had been added. A scheme for establishing another modern saw-mill in Nigeria has been adopted by the Colonial Development Corporation. In the Gold Coast the Forestry Department set up and successfully operated a saw-mill at Kumasi during the war ; in 1948 this was taken over by a commercial concern. Several of the leading timber firms have established mills in the Gold Coast, in some cases combined with veneer and plywood plants and in 1949 there were eleven mills in operation. In 1949 the Colonial Development Corporation took over an existing saw-mill in British Guiana from a private firm and it has included the erection of a modern saw-mill capable of handling 40,000 to 50,000 tons of logs a year in its plan for the Bartica triangle. In Northern Rhodesia, one of the largest saw-milling concerns in Africa is at Livingstone, and there are also other smaller saw-mills and a plywood factory in the territory.

WOOD PULP

The increasing world demand for paper is already tending to outgrow the supplies of the conventional raw materials. Hitherto none of the " pulp " products of timber have been produced in the colonies. A survey was recently carried out* of the timber resources of British colonial territories to see whether in fact colonial timbers could be used to supplement existing sources of supply of wood pulp. The conclusion to be drawn from the survey was that on either technical or economic grounds any such proposals in the immediate future must be ruled out.

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* See " Colonial Primary Products Committee : Second Report, January, 1949." Colonial Number 238, pages 41-44.

TOBACCO

Tobacco is manufactured from the cured leaves of certain species of the plant *Nicotiana*, grown as an annual crop, of which *N. Tabacum* is the most important for the production of smoking tobacco. Nicotine for use in insecticides is extracted from waste tobacco, stems and cuttings, and also from the plants of *N. Rustica*, which is grown for this purpose on account of the high nicotine content.

Most of the tobacco consumed in the United Kingdom, the U.S.A. and Europe is smoked as cigarettes and in almost all parts of the world in the last 30 years cigarette smoking has steadily increased relatively to other forms of tobacco consumption. In the United Kingdom this increase in cigarette smoking has been accompanied by a decline in demand for Oriental and Turkish types of cigarettes, although in recent years, owing to the shortage of Virginia type leaf, much more Oriental type leaf has been blended into so-called Virginia cigarettes than ever before and imports of tobacco from Turkey and Greece are far greater than in years preceding the 1939-45 war. In the U.S.A. a large proportion of smokers prefer blended cigarettes containing a proportion of Oriental tobacco, but these are not generally favoured in the United Kingdom.

Tobacco can be grown in almost any climate and in a great variety of soils, but good quality leaf can be produced only with the right combination of soil, climate, variety of seed, method of cultivation and curing. It is not possible to predict in advance that a particular area will produce good quality tobacco or that a variety of seed which is satisfactory in one area will give good results in another. Tobacco grown in one locality develops characteristics of its own which may be desirable or undesirable. Smokers are conservative as regards changes in flavour and prefer a standard product, so that the establishment of tobacco growing in a new area from which tobacco with a new set of characteristics will be produced is an uncertain venture.

In addition to, and within, the broadly defined types of tobacco known to the consumer, the trade distinguishes a large number of " types " of tobacco which depend on the factors of soil, climate, etc., mentioned above. Leaf is also classified according to the different methods of curing which affect the properties of the leaf and to a great extent determine whether it can be used for cigarettes or other purposes. The bulk of the tobacco entering world trade is cured by one of the following methods :

Sun-curing. This involves curing the leaves by exposure to the rays of the sun, and is practised largely in Eastern countries.

Air-curing. This is effected by hanging the leaves in barns with free circulation of air. Cigar leaf and " White Burley " are usually so cured.

Fire-curing. The tobacco is hung in barns and exposed to the heat and smoke of open wood fires, the products of combustion coming into contact with the tobacco. After harvesting, the leaves are allowed to wilt for a short time and are then hung in the barns, where in the course of a few days they develop a rich yellow colour. When this stage is reached, slow fires are started on the floor beneath the tobacco. The heating is slowly increased during the next few days, and is then carefully regulated so as to effect an even curing of the leaf and a gradual change in colour to brown.

Flue-curing. The leaves are cured in barns by artificial heat derived from fires in external or internal furnaces. The hot air and smoke are carried through the barn beneath the hanging tobacco in flues of sheet iron pipe. In this method the smoke does not come into contact with the leaves. Flue-curing is employed for the production of " bright " tobacco, and needs more skilful supervision than any other process. The temperature and ventilation of the barn must be under strict control. The process consists of three distinct stages—(1) yellowing, (2) fixing the colour, (3) drying.

After curing, all tobacco is stacked in heaps and turned from time to time. The object of this, in the case of air and flue-cured tobacco, is to improve the appearance of the tobacco and remove any residual green colour and the process usually takes some days for completion. Fire-cured and cigar tobacco, however, is left in the stacks till the leaf has fermented. In order to allow this natural process to take place, a period, which is usually about a month but varies according to the weather, is required.

As soon as this process is complete the tobacco is graded and pressed into bales or hogsheads and stored in warehouses either in the country of origin or, more usually, elsewhere, in a moderate and fairly uniform temperature, where it may remain in some cases for as long as several years to mature and " age."

Owing to the fact that tobacco must be " aged " before it is fit for use, there are always stocks representing a number of months' normal consumption in store. Two years' stocks are not unusual, and the existence of large stocks, provided they are not obviously excessive, does not indicate that the commodity is in over-supply.

The quality of the leaf depends not only on its growth in suitable conditions, but also on the proper performance of the subsequent processes. It is exceptional for any tobacco product to be manufactured exclusively from a single type or grade of leaf ; nearly all are blended from a variety of leaves possessing different qualities and it is the expert blender making these mixtures who must be satisfied that the leaf offered to him possesses the qualities which he requires.

The marketing of tobacco varies widely in different parts of the world. In the United States and in Southern Rhodesia and Nyasaland the tobacco is sold at public auctions of cured leaf. The auction system has also from time to time been advocated for the Indian flue-cured crop and for Canada. In those parts of the Commonwealth where auctions do not take place the export crops are generally bought in the country of origin by representatives of the manufacturers or sold on consignment.

Broadly speaking, tobacco is ready for picking in the late summer, but in some tropical countries there is no marked distinction between the various seasons, and in any case the curing and fermentation which must be carried out in the country of origin necessarily produce a lag in the arrival of the crop in overseas markets. The following are the months during which the bulk of the annual crops of certain countries reach the United Kingdom :

Nyasaland—July to October.
Northern and Southern Rhodesia—July to October.
Canada—December to April.
India—June to October.
United States of America—September to January.

Stocks are normally retained in bond in the United Kingdom for a prolonged period and there is no marked season for withdrawals.

Broadly speaking there are in the United Kingdom four main classes of tobacco, each divided into a very large number of types and grades, namely :

Flue-cured " bright " leaf, mainly for Virginian type cigarettes.

Fire-cured and dark air-cured leaf for pipe smoking and chewing tobacco ; these are blended with flue-cured in better class smoking mixtures.

Leaf for making cigars.

Leaf for making Turkish type cigarettes.

The terms "Virginia" and "Turkish" have almost entirely lost their original geographical significance, and are now descriptive only of classes of tobacco.

The leaf required for cigarette smoking is thinner than that for pipe smoking ; it is also milder, and in the case of flue-cured for the United Kingdom market should have a bright lemon colour. Sometimes the upper and upper middle leaves only are used for cigarette manufacture, the lower leaves and "sand lugs" being used for pipe smoking or chewing.

A cigar is made up of "filler", "binder" and "wrapper" leaves, the two latter being of especially high quality and commanding higher prices.

Apart from the types mentioned above there are numerous less important local types, such as the highly aromatic Latakia and Perique or the different eastern types used for smoking in water pipes, for making the Indian "bidi" (leaf-wrapped cigarette) or the Burmese "torch" cigar.

The countries now producing these classes of tobacco are, broadly speaking, as follows :—

(1) Virginian Cigarette Leaf—The United States of America, Canada, Southern Rhodesia, India, China, Japan, the Union of South Africa, small quantities in Australia, Nyasaland, Northern Rhodesia, New Zealand, Germany and France.

(2) Pipe Tobacco—Canada, India, Southern Rhodesia, Nyasaland, Northern Rhodesia, Australia, New Zealand, the Union of South Africa, the United States of America, and a number of other foreign countries.

(3) Cigar Leaf—Cuba, the Philippines, Indonesia, India, Burma, Jamaica, small quantities in North Borneo, Brazil and Puerto Rico. Jamaica produces a filler leaf only.

(4) Turkish Cigarette Leaf—Greece, Bulgaria, Turkey, Yugoslavia and various Asiatic countries ; small quantities in Cyprus, Palestine, Northern and Southern Rhodesia, and the Union of South Africa.

WORLD PRODUCTION AND CONSUMPTION

Accurate figures for the area and production of tobacco are not available from some countries, so that statements on world trends in production are of doubtful value. Figures of world trade in tobacco can be ascertained with much greater accuracy and are of greater significance. The period from 1939 onwards is of particular interest because the pattern of world trade was disrupted by the war and a new pattern is becoming apparent which reflects post-war supply and demand as affected by the restrictions imposed by the shortage of certain currencies. Figures for acreage and production in the principal producing countries (as published by the Commonwealth Economic Committee in "Tobacco Intelligence," Vol. 1, No. 3) are given in the tables below :—

AREA AND PRODUCTION OF TOBACCO IN PRINCIPAL PRODUCING COUNTRIES

	1938		1948	
	Area ('000 *acres*)	*Production* (*million lb.*)	*Area* ('000 *acres*)	*Production* (*million lb.*)
Colonial Territories				
Nyasaland (*a*)	71	18	112	25
Northern Rhodesia (*a*)	4	2	11	5
Tanganyika	5	2	12	4
Uganda	8	2	7 (*c*)	3 (*c*)
Cyprus	0	0	2	1
Other Territories				
U.S.A.	1,601	1,386	1,555	1,982
India (*a*) (*b*)	1,288	1,131	709	466
China (*d*)	1,010	983	1,529	1,593
Canada	84	101	111	127
Brazil	227	201	320	198
Indonesia :				
Estates	104	90	n.a.	9
Native (Java and Madura)	363	146	n.a.	n.a.
Turkey (*a*)	208	127	261	163
Japan	92	138	123	132 (*c*)
Italy	82	95	144	159
Greece	210	106	181	81
Southern Rhodesia (*a*)	49	27	119	78
Bulgaria	77	57	200	65
Cuba	112	55	106	56
Burma	100	99	132	n.a.
Philippines	185	86	n.a.	38

(*a*) Figures are for season ending in year at head of column.
(*b*) 1948 figure does not include Pakistan.
(*c*) 1947 figure.
(*d*) 1938 figure refers to Free China only.

World acreage increased considerably up to 1947, decreased sharply in 1948 but rose again in 1949. Production appears also to have increased considerably during the same period, but the drop in 1948 is much less marked than the drop in acreage, thus indicating an increase in the average yield per acre obtained. Production remains at a much higher level than before the war. The figures indicate a world trend towards a higher average yield per acre, though in some countries the trend is in the opposite direction. In the United States of America the improvement in yields is well marked, as also, to a lesser degree, in Southern Rhodesia. There is no clear trend in the case of Nyasaland.

Exports from the more important exporting countries for the years 1938, 1947, 1948 and 1949 are shown in the table below :—

TOBACCO EXPORTS
(million lb.)

Country	1938	1947	1948	1949
U.S.A.	489	507	427	498
Turkey	93	94	111	176
Southern Rhodesia	23	47	68	68
India*	54	51	40	62
Greece	108	32	40	62
Nyasaland	13	20	24	25
Canada	17	25	16	16
Northern Rhodesia	1	3	5	6

* Indian Union only after 1948.

It will be noted that exports from Greece and India fell below the 1938 level after the war, owing to domestic causes, but Indian exports had more than recovered from this set-back by 1949. Exports from the United States of America declined in 1948 as a result of currency difficulties in the non-dollar world. In 1949, however, tobacco exports rose above the 1938 level, partly as a result of Marshall Aid. Exports from Turkey, Southern Rhodesia, Nyasaland and Northern Rhodesia have increased in response to the increased demand for tobacco from non-dollar areas which has resulted from currency restrictions. Although the proportion of tobacco entering the world market from the Colonies has increased from 1·75 per cent in 1938 to 2·9 per cent in 1947 and 4 per cent in 1948, it is still very small ; the proportion of this trade from Southern Rhodesia has increased much more rapidly from 2·9 per cent in 1938 to 6 per cent in 1947 and 9·3 per cent in 1948.

While world production is at a higher level than before the war, world trade in tobacco is at a lower level. World trade declined in 1947 and 1948, but increased again in 1949. Whereas before the war about one-fifth of the world's production entered world trade, in 1948 the fraction entering world trade was only about one-eighth. This is the result of increasing consumption in some of the main producing countries, e.g. China and the United States of America, and the restriction on imports into many countries as a result of currency difficulties, accompanied in some cases by an increase in domestic production in those countries, e.g. France.

The following table shows imports for consumption in certain countries in recent years. United Kingdom figures are of total imports.

UNMANUFACTURED TOBACCO IMPORTS

(million lb., dry weight)

	1938	1948	1949	1950
United Kingdom	345	281	301	306
Germany ..	221	14(*a*)	101(*a*)	101(*b*)
U.S.A.	71	84	88	90
Netherlands ..	69	36	68	64
France	57	28	74	46
Belgium	38	43	42	47
Spain	n.a.	32	42	56
Egypt	13	25	30	28
Sweden	14	16	15	19

(*a*) Bizone only. (*b*) West German Republic.

Consumption in the United Kingdom rose sharply during the war, but fell after 1946 as a result of currency difficulties and higher rates of duty. Also, the proportion of tobacco imported from Commonwealth sources rose from 19·4 per cent in 1938 to 48 per cent in 1950. The amount of tobacco retained for home consumption per capita rose fairly steadily from 2·99 lb. in 1926 to 4·21 lb. in 1940. It increased sharply during the war and reached about 4·5 lb. in 1947 but declined to approximately 4·2 lb. in 1949. The decline in the consumption of pipe tobacco and cigars in the United Kingdom relative to that of cigarettes, which was a feature of the inter-war years, has continued. The per capita consumption of all types of tobacco in certain countries in 1948 is given below.

Consumption of Tobacco per Head, 1948

Country	*lb. per head*
United Kingdom	4·42
United States of America ..	7·5
Belgium	5·4
Sweden	3·07
Norway	3·45
Denmark	4·95
Netherlands	4·42
France	3·0
Canada	5·81
Australia	3·57

The rates of import duty in the United Kingdom per pound of unstripped leaf containing 10 per cent or more of moisture for the period from 11th September, 1931 to 1951 are given below :—

Period	*Full duty*		*Imperial Preferential duty*	
	s.	d.	s.	d.
11th Sept., 1931–25th April, 1939	9	6	7	5½
26th April, 1939–27th Sept., 1939	11	6	9	5½
28th Sept., 1939–23rd April, 1940	13	6	11	5½
24th April, 1940–23rd July, 1940	17	6	15	5½
24th July, 1940–14th April, 1942	19	6	17	5½
15th April, 1942–12th April, 1943	29	6	27	5½
13th April, 1943–15th April, 1947	35	6	33	11½
16th April, 1947–5th April, 1948	54	10	53	3½
6th April, 1948–End of 1951	58	2	56	7½

COLONIAL PRODUCTION

Although the production of tobacco in the Colonial territories is still relatively small, it has greatly increased in both quantity and value in recent years. The demand for Colonial tobacco has increased very greatly since 1939, partly because of an increased demand for tobacco in the consuming countries but mainly because of the shortage of hard currency in many consuming countries.

Tobacco is produced in almost all Colonial territories but the only territories entering into world trade in this commodity are Nyasaland, Northern Rhodesia, Jamaica, Tanganyika, Kenya, Uganda, Cyprus and North Borneo. Production for domestic consumption is well established in Mauritius, Fiji and Malaya. Although many Africans in West Africa grow sufficient tobacco, of very poor quality, for their individual requirements, very little tobacco of commercial value is produced in West Africa ; the small quantity which does appear on the market is used for the manufacture of cigarettes for local consumption.

Production of flue-cured tobacco in the Colonies is mainly in the hands of European planters since peasants have in general neither the capital to build the curing barns nor the skill and experience necessary for the production of flue-cured tobacco of a quality comparable with that of the Virginian type of leaf grown in America, Canada and Southern Rhodesia. In certain areas small quantities of flue-cured tobacco are produced by Africans and sold as green leaf to a European firm which cures and disposes of the leaf. Fire- and air-cured tobaccos are generally produced by smallholders.

Nyasaland. Nyasaland is the largest of the Colonial producers of tobacco ; the bulk of the tobacco produced is dark-fired, and constitutes the main source of United Kingdom imports for pipe mixtures ; a substantial quantity of specially treated dark-fired leaf is also exported to West Africa, especially Sierra Leone. The dark-fired leaf is produced mainly by Africans, to a large extent by smallholders on Native Trust Land, but to a very considerable extent also by African tenants on European-owned or leased estates. The industry is subject to increasingly close Governmental control, the aim of which is to improve the quality of leaf and the yield per acre, which is very low, without making further large claims on the area or the number of cultivators available to raise food crops. This control involves the licensing (in controlled areas of the Native Trust Land) or registration of growers, the prescription of methods of curing, of grades and of prices for grades of tobacco grown on Native Trust Land.

A quantity of sun- and air-cured (including Burley) tobacco is also grown in Nyasaland, mainly on estates. In addition there is a small and increasing flue-cured tobacco industry in the hands of the European planters. A further substantial increase in the production of flue-cured tobacco is expected in the Kasungu area where a large area of land has been allocated and leased for this purpose to planters and to the Colonial Development

Corporation. In 1946 legislation was enacted making it compulsory for virtually all tobacco produced in Nyasaland to be sold over the auction floors at Limbe. Previously part of the Nyasaland exports was sold direct to exporters or on consignment, but it was felt that to put the whole crop on the floor would attract buyers. Auctions at Limbe commence in April and end in September each year.

Northern Rhodesia. Northern Rhodesia is the second most important Colonial producer. Almost the whole of the production is flue-cured leaf of the Virginia type but a small quantity of Turkish type leaf and Burley is grown. Apart from a small production of Burley by Africans the industry is in the hands of European planters in two clearly defined areas, one around Fort Jameson, the old centre of the tobacco industry, and the other along the railway belt in the north-west. Production has expanded rapidly since 1939 and now that all the suitable land in the Fort Jameson area has been taken up expansion is confined to the railway belt where there is still a large area of suitable land for development. Owing to the difficulties of communications a single market is not possible and tobacco from the Fort Jameson area is auctioned at Fort Jameson while that from the railway belt is auctioned at Salisbury in Southern Rhodesia.

Kenya, Uganda and Tanganyika. The three East African territories form a region which although it exports certain types of tobacco is a net importer. Flue-cured, air-cured and dark-fired tobacco are all produced in East Africa but the greater part of the output is consumed in local factories in making cigarettes and tobacco for local consumption, or exported to the Belgian Congo. Small quantities of the better quality leaf of the different types are exported, mainly flue-cured from Tanganyika. The production of flue-cured tobacco in Tanganyika has increased rapidly since 1939 and there are suitable areas for a further development provided that a satisfactory market can be found.

Jamaica. The traditional types of tobacco produced in Jamaica are cigar filler leaf and " rope tobacco " which is produced in small quantities for local consumption. A satisfactory Virginia leaf has never been produced in Jamaica on a commercial scale but an attempt to produce this type of leaf and also a satisfactory cigar wrapper leaf is at present being made. The export of cigars and cigar leaf from Jamaica expanded enormously during the war from 1939 to 1945 because those countries which were short of dollars, including the United Kingdom, were unable to purchase cigars from Cuba. Exports reached a peak figure of over 400,000 lb. in 1947 by which time tobacco had risen to fourth place among Jamaica's exports. Since 1947 exports have declined sharply, partly owing to the saturation of markets after the war and partly owing to the drop in demand caused by high import duties and the high price of cigars.

North Borneo. In addition to the production of tobacco for cheroots for local consumption Borneo is at present the only source of good quality cigar wrapper leaf in the Colonial territories. The estates suffered severe damage during the Japanese occupation of North Borneo but have now recovered and in 1949 119 tons of wrapper leaf were exported.

Cyprus. The Cyprus tobacco industry is an old-established one but it has declined in importance since the Virginia type has replaced the Oriental type in popularity in export markets. Cyprus produces a bright Turkish leaf for cigarettes and a dark perfumed leaf of the Latakia type for pipe tobacco. The Virginia type has been introduced but it has not been possible to produce a leaf acceptable to the United Kingdom manufacturers, and in spite of the scarcity of cigarette tobacco there has been considerable difficulty in marketing Cyprus tobacco.

Mauritius. Tobacco cultivation is comparatively new to Mauritius and in spite of considerable research it has not been possible to produce a leaf of suitable flavour for export. Production is mainly of the Amorello type of tobacco and the acreage under this crop is restricted in order to produce only the quantity of leaf required for local consumption. The industry is controlled by the Mauritius Tobacco Board which issues licences for cultivation and controls the manufacture of tobacco. A certain amount of leaf is imported to blend with the local product. The average acreage has been 530 acres and the average annual production 350,000 kilos.

COLONIAL TOBACCO PRODUCTION 1938, 1939 AND 1945-49

'000 lb.

Territory	1938	1939	1945	1946	1947	1948	1949
Nyasaland	17,931	14,504	20,583	17,154	26,409	25,367	25,355
N. Rhodesia	2,066	1,961	2,873	4,180	4,380	4,740	6,152
Tanganyika	1,622	1,972	3,367	2,426	2,995	4,455	5,065
Uganda	2,549	2,091	2,230	1,938	1,835	3,942	2,688(1)
Cyprus	36	116	1,828	2,954	826	917	1,226
Jamaica..	n.a.	n.a.	193	240	284	328	179
Trinidad	42	41	10	9	5	7	6
N. Borneo	412	543	n.a.	n.a.	n.a.	n.a.	n.a.
Mauritius	358	578	743	761	907	793	596

n.a. Not available.

(1) Purchases from growers and excluding high-nicotine content tobacco.

VEGETABLE FIBRES (OTHER THAN COTTON)

There are two main classes of vegetable fibres: hard and soft fibres. Hard fibres are mostly those extracted from leaves and leaf bases while soft fibres are obtained from the bast tissues of the stem. Both are essentially textile fibres in that they are normally either spun into twine or cordage or woven into fabrics. There are, however, a number of fibres which serve other industrial uses, such as providing bristles for brushes and brooms or stuffing for upholstery.

A great many botanical varieties of fibre are known, but the number of fibres which are of commercial importance is at present relatively small. Research into the cultivation and utilisation of new fibres is, however, going on in many countries, including British Colonies.

Although each fibre has its principal use or uses, there is a considerable degree of interchangeability not only within the two classes of hard and soft fibres, but also between certain hard and certain soft fibres, limited, however, by the fact that different machinery is usually required for spinning hard and soft fibres.

WORLD PRODUCTION AND CONSUMPTION

Hard Fibres

Approximately 85 per cent of hard fibre production is consumed by the cordage industry in the manufacture of rope, tying twines, binder and baler twines and various constructions of cordage. The remaining 15 per cent is used in the manufacture of carpet yarns, bagging materials, upholstery, padding, paper, wallboard, reinforcing materials in plastics, and other non-cordage products. In normal times, cordage requirements and production change with the demands by various industries, particularly fishing, oil well drilling, shipping and general manufacturing enterprises. Wrapping twine requirements are in direct proportion to wholesale and retail trade activity. Binder and baler twine production increases or decreases in relation to agricultural output and harvesting methods, the introduction of the combine harvester having led to a slackening in the demand for binder twine, while the increase in hay baling has led to an increasing demand for baler twine.

The main hard vegetable fibres are listed below together with their scientific nomenclature and chief producing areas:

Fibre Trade Name	*Botanical Name*	*Principal Area of Production*
Abaca or Manila hemp	*Musa textilis* ..	Philippine Republic, Indonesia, Central America
Sisal	*Agave sisalana* ..	Africa, Indonesia, Haiti, Brazil
Henequen	*Agave fourcroydes* ..	Mexico, Cuba, El Salvador
Cantala or Philippine maguey	*Agave cantala* ..	Java, Philippine Republic
Palma istle or tampico	*Samuela carneorosana*	Mexico
New Zealand flax or hemp	*Phormium tenax* ..	New Zealand
Bowstring hemp	*Sansevieria spp.* ..	Africa, New Guinea
Caroa	*Neoglazovia variegata*	Brazil
Mauritius hemp	*Furcraea gigantea* ..	Mauritius

The botanical names of the fibres listed, while recognised by all botanists, are seldom used by the trade, as will be seen from the above list.

Manila hemp or abaca is the product of a plant belonging to the banana family. It is indigenous to the Philippines which before the war provided about 98 per cent of the world's supply; exports from the Philippines having averaged 170,000 tons in the last five years prior to the war. ~~After the~~ war, during which shipments of abaca had been cut off, ordinary channels of trade and transportation in the Philippines were in a chaotic condition. Fibre production has dropped severely and since the war has only been 40 to 60 per cent of its pre-war level. The rate of new plantings is still very slow so that production may decrease still further in the near future owing to the exhaustion of pre-war plantings. Being cut off from Philippines' supplies during the war, the United States made vigorous efforts to encourage the production of Manila hemp in Central America, as a result of which 29,000 acres were planted of which some 26,000 remained in production during 1948; this acreage is being further increased and may eventually be doubled. The production of this area was some 40,000,000 lb. in 1948—i.e., approximately 16 per cent of world production. Small quantities of Manila hemp are also grown in North Borneo, Sumatra, Java and Ecuador.

The plant only flourishes in a warm climate. It needs a high degree of humidity and will not withstand drought. It therefore thrives only in situations where there is a rather heavy rainfall distributed more or less evenly throughout the year. It requires a loose, moist soil, rich in humus, and well drained. The young plants are usually set about 8 to 10 feet apart. The plant comes into bearing in about two years and then yields leaves suitable for fibre extraction for about 12 to 15 years. There is a great variation in actual yield, from 336 lb. to one ton per acre, half a ton being regarded as very satisfactory.

The fibre is at its best just before flowering takes place, and when this stage is reached each leaf sheath is cut down a few inches from the ground. The first leaf sheaths are generally ready for cutting about two or three years after planting. The fibre is extracted from the outer portions of the sheaths, a process consisting of two stages. First, strips are pulled off from the leaf sheath, and then the strips are passed under a knife on a wooden block to remove pulpy tissue. The latter process is repeated until nothing remains but the clean fibre, which is then hung out to dry and afterwards tied in bundles and baled. After the outer part of each sheath has been separated in strips, the remaining fleshy part is removed, exposing the next sheath which is then dealt with in the same way. The yield of dry fibre from the fresh stalks is about two to three per cent. Mechanical methods of stripping have been developed which although they do not produce such a high quality fibre and give a lower yield are much cheaper to operate.

Manila hemp is pre-eminently a cordage fibre, its chief use being for the manufacture of ships' ropes and cables, for which it is particularly well suited by its tensile strength, lightness and resistance to sea-water. It is also used for making certain types of paper, and in the Philippines it is made into cloth. The tow is employed to a limited extent for upholstery.

Sisal fibre is strictly only obtained from *Agave sisalana*, belonging to the natural order of *Amaryllidaceae*. But closely related to sisal, used for similar purposes and often called sisal are *Henequen* (*Agave fourcroydes*), which is cultivated mainly in Mexico, Cuba and Central America, and *Maguey* (*Agave cantala*), which grows in South-East Asia, especially in the Philippines. Two other members of the Agave family, Tula istle (*A. lecheguilla*) and Jaumave istle (*A. funkiana*), also known to the trade as Mexican fibre since Mexico is the only source of supply, provide fibres which are used extensively in the manufacture of brushes.

The sisal plant, whose original home is Central America, has been transplanted to a great many tropical countries, but before the last war there were only two major producing areas of *Agave sisalana*, namely, East Africa and the Netherlands East Indies. In addition Portuguese East and West Africa had an appreciable production of sisal, while the production of henequen in Mexico was also substantial. Since the war production of sisal in Indonesia has dropped considerably so that it has not been possible to resume exports from there on any significant scale. Large areas have been converted to food crops and little fresh production has been started so that Indonesian production is not likely to recover for some time. As a result British East Africa now produces 40 per cent of all sisals (including henequen), Mexico 30 per cent, Brazil (where production is growing rapidly) 5 per cent, and Portuguese East and West Africa 7 per cent. Sisal is also grown on an appreciable scale in Haiti, and on a small scale in Venezuela, Cuba and Madagascar. There is also in many parts of the world, including Jamaica and the Bahamas, a small production which is used locally for the production of ropes, bags, etc.

In most countries sisal is grown on plantations. Planting may either be done with suckers or from bulbils. Whereas suckers are planted straight away into the plantation, bulbils are brought on for 18 months in nurseries and then transplanted. The fibre is obtained from the leaves which are stripped of their fleshy parts.

In East Africa a sisal plant takes three to four years to reach maturity and will yield fibre for four to five years. This period varies slightly according to the soil and climatic conditions. When the plant has reached maturity it is cut once a year. Towards the end of its life the *Agave* plant sends up a tall, fleshy pole or flowering stem which may be 10 to 20 feet high and several inches in diameter. The " flowers " or " bulbils " are produced at the end of short branches at the top of the " pole " and, when mature, give rise to small plants which can be used as a means of propagation. After " poling," the parent plant dies.

The extraction of the fibre is done by machines, known as decorticators. After washing, drying and baling, the fibre is ready for export; only a small proportion is used for manufacture in the producing countries. The yield of dry, clean sisal fibre is on the average about 1,760 lb. per acre per annum during the productive life of the plant. Sisal is the hardest of all fibres derived from the *Agaves*. Its main use is in the making of ropes and twine, most of all binder twine. But it is also woven into coarse fabrics, especially sacking, and sisal " tow " is used in upholstery, mattress making, etc.

The fibre represents only three to four per cent of the weight of the leaves and a large part of the sisal plant constitutes waste, the disposal of which poses a difficult problem. Investigations have taken place, both in the United Kingdom and elsewhere, into the possibility of making use of other portions of the plant. From a commercial point of view the most important of these substances which have so far been extracted are sodium pectate, which is used by the food, cosmetic and pharmaceutical industries, and a wax.

New Zealand Hemp or *Phormium tenax* (natural order *Liliaceae*) is native to New Zealand and grows there mainly wild. Production is not large. Before the war it ranged between 6,000 and 8,000 tons per annum, but during the war the need to concentrate on food production caused a significant decline in the *Phormium* acreage so that by 1946 it was only 33,000 acres compared with 67,000 in 1938, and production had dropped to some 4,000 tons. Production is now increasing again due mainly to a plan for rehabilitating the industry under which the Government has guaranteed to purchase all the fibre and tow during the next 10 years. The production is entirely consumed locally for cordage and wool packing. It is also cultivated on a small scale in St. Helena and has been introduced into South Africa, Japan and various parts of South America. It is propagated by seeds, by suckers, or by rhizomes, and planting under cultivation is done at intervals of six feet with six feet between the rows. In New Zealand the plant grows to a larger size near sea level than on the uplands, but the upland fibre is finer and more easily extracted. The crop takes from five to eight years to mature, and the plant is said to last about 20 years. There is great variation in the yield of leaf per acre, and figures of from 10 to 40 tons per acre have been quoted. The fibre content is from 10 to 14 per cent of the weight of the leaves. The bulk of the fibre is extracted by small machines of the raspador type, the resulting product being much coarser than that prepared by hand. *Phormium* prepared by hand has been found to be as soft as flax and it is believed that it could be spun on soft fibre machinery.

Mauritius Hemp (*Furcraea gigantea*) belongs to the natural order of *Amaryllidaceae*. It has thick and fleshy sword-shaped leaves, from four to eight feet long and five to nine inches broad at the middle, and produces an inflorescence or " pole " which reaches a height of 20 or 30 feet.

The plant is hardy, and can grow under a variety of conditions of soil and climate. It yields well on sandy or stony soil. Natural propagation takes place principally by means of the numerous bulbils produced on the " pole," which fall to the ground and take root, but in nurseries it is generally considered preferable to raise new plants from suckers, which are selected from non-poled plants. Leaves can generally be cut when the plant reaches the age of three or four years, and cutting can be continued for five or six years, after which the plant produces its flowering pole and then withers and dies.

Although Mauritius hemp has been introduced into a number of countries, it is exploited on a commercial scale only in Mauritius. The fibre resembles sisal in its general properties, but it is usually softer, finer and weaker. In Europe it used to be employed in making cordage sometimes in admixture with manila or sisal, but for some years the bulk of the production has been absorbed in the manufacture of sugar bags in Mauritius.

Caroa has been utilised by the inhabitants of Brazil for a long time and is Brazil's most abundant native fibre. The plants grow wild over an area of about—20,000,000 acres in the north-eastern region of the country. The leaves are collected from the wild plants and decorticated by small machines of the raspador type. Production was less than 1,000,000 lb. in 1938, but stimulated by wartime demands it reached a peak of 23,000,000 lb. in 1944, of which 14,000,000 lb. were exported. Production has dropped since the war but is increasing again, the 1949 estimate being 19,000,000 lb. Its principal use is as a bagging material, but it is also used in the manufacture of paper and rope. There are vast potential supplies of wild caroa fibre in Brazil but it would seem that only exceptionally high prices are likely to lead to significant quantities being exported. The shortage of jute will, however, probably keep production at a fairly high level for the next few years.

Bowstring hemp is almost as well known by its botanical name of *Sansevieria*. It grows in a wild or cultivated state in most tropical countries. There are several species indigenous to Central America, Africa and India. The fibre varies in length, depending upon the method of cultivation, and has a tensile strength comparable with that of the best grade of sisal. It has potentialities as a fibre for bag manufacturing, but is not yet of major economic significance.

Piassava is the long, stiff, wiry fibre obtained from the leaf-stalks of certain palm trees. The best known varieties are Bahia piassava, obtained from *Attalea funifera* in Brazil and Venezuela; *Para piassava* from *Leopoldinia Piassava*, also in Brazil; West African piassava from *Raphia spp.*; and Madagascar piassava from *Dictyosperma fibrosum*.

Piassava is used for making brooms and brushes of various kinds, including the brushes of road-sweeping machines, and for use in scrubbing-towers in gas-works; it can also be employed for the manufacture of baskets and chair-bottoms.

The edible pineapple (*Ananas Sativa*) produces a fibre of fine quality from its leaves, but the yield is small and the only countries which are known to make use of the fibre are the Philippines, Formosa, and to a small extent Java.

While prior to World War II the Far East accounted for approximately half of the commercial production of all hard fibres and for practically the entire output of abaca, the relative share supplied by that area during 1948 dropped to about 20 per cent for all hard fibres and to approximately 80 per cent for abaca. To counteract war-time loss of the Philippines and Netherlands East Indies as sources of supply, output of sisal was expanded in Africa and Haiti and a new abaca producing area was established in Central America. Also as a result of the high prices prevailing since the war regions which were considered marginal producing areas gained in importance.

Since the war the total demand for hard fibres has been substantially in excess of supply, because of stocking for commercial and military purposes, but it is anticipated that the shortage is only short-term. The effect has been that prices have risen greatly, as the following table shows :

PRICE OF CERTAIN FIBRES (per ton)

	January, 1938	January, 1949	December, 1949	June, 1951
	£ s.	£ s.	£ s.	£ s.
Manila Hemp	25 5	86 0	125 0	259 0
East African sisal No. 1	20 5	95 10	112 0	245 0
Cebu Maguey No. 2	21 0	77 0	97 0	139 0
New Zealand Fair..	22 10	Not available since exports were prohibited		
Mauritius Hemp Prime	21 10	115 0 (July 1949)	100 0	n.a.

Soft Fibres

The main difference between the hard and soft fibres is that the latter can be readily spun into textiles. These textiles range from the linen and canvas produced from flax, through the wide range of cotton textiles to the burlap and sacking made from jute. Soft fibres (particularly hemp) are, however, also used to some extent for soft pliable ropes and string. The following is a list of the principal soft fibres other than cotton :

PRINCIPAL SOFT FIBRES (EXCEPT COTTON)

Botanical name	*Common or Vernacular Names*	*Areas in which occurs*	*Areas in which produced commercially*
Corchorus capsularis L. *Corchorus olitorius L.*	" White " jute (*C. capsularis*), " Tossa " jute (*C. olitorius*), pat, pata, kashta, patua, etc.	Pakistan, India, Brazil, Argentine, Formosa, Thailand, Sudan, West Africa, New Guinea, North Borneo, Japan, Indo-China	Pakistan, India, Brazil, Formosa
Linum usitatissimum L.	Flax	Great Britain, Eire, U.S.S.R., European Continent, East Africa, Australia, Chile, South America	Great Britain, Eire, U.S.S.R., European Continent, Uganda, Chile, Argentine
Cannabis sativa L.	Hemp	European Continent, U.S.A., U.S.S.R., Cyprus, Central Asia, Argentine, Chile	European Continent, U.S.A., U.S.S.R., Argentine, Chile
Crotalaria juncea L.	Sunn hemp, Bombay hemp, San hemp	India, Pakistan, Ceylon, East Africa, Northern Rhodesia	India, Pakistan
Urena lobata L.	Congo jute, Paka, Malva Blanca, Cadillo, Uacima, Guaxima, Uacima roxa	Belgian Congo, Northern and Southern Rhodesia, Madagascar, Fiji, Cuba, Brazil, Jamaica, East Africa, West Africa, British Guiana, Malaya, Philippines	Belgian Congo, Madagascar, Brazil
Hibiscus cannabinus L.	Deccan hemp, Bimli jute, Ambari hemp, Kenaf, Wilde Stokroos, Rama	India, Pakistan, West Africa, South Africa, East Africa, U.S.A., Cuba, U.S.S.R., Central Asia, South America, West Indies, Malaya, British Guiana, etc.	India, Pakistan, Nigeria, Cuba, U.S.S.R.
Hibiscus sabdariffa L.	Roselle. Also known as " Rama " in the Gold Coast	East and West Africa, Malaya, Asia, West Indies, South America, British Guiana, Indonesia, etc.	Indonesia
Honckenya ficifolia Willd. (*Clappertonia ficifolia*)	Bolo-bolo, Napunti, Potepo	Sierra Leone	None
Boehmeria nivea Gaudich, *Boehmeria nives*, variety *tenacissima* Gaudich	Ramie, Rhea, China grass	China, Formosa, India, Indonesia, Philippines, West Africa, East Africa, U.S.A., Cuba, West Indies, South America, etc.	China, Philippines, U.S.A., South America, Belgian Congo

Jute is the most important material used in the manufacture of bags and sacks. Its extensive cultivation in India dates from the beginning of the nineteenth century, when Dundee mill-owners had acquired the technique for spinning jute on flax machinery. Later jute mills were set up in the Indian sub-continent which still produces 97 per cent of the world's output of raw jute, 70 per cent being produced in the northern and eastern regions of Bengal in Pakistan, and the rest in India. A small quantity is also produced in Brazil. Before the war Indian jute production averaged about 2,000,000 tons, of which 40 per cent was exported as raw jute and 57 per cent went into Indian-made jute goods. Since 1941 output has been generally low, due at first to the war-time need for expanded food production, and later to a variety of causes, including bad weather and the high price of rice. Exports of raw jute, which had been 690,000 tons in 1938-39, have usually been between 300,000 and 400,000 tons since the war. The U.K. price of jute, which was about £18 per ton in 1938, had risen to £120 per ton at the end of 1950, and doubled thereafter, reaching £240 per ton in April, 1951. The main importers of jute are the United States, the United Kingdom, France, Belgium, Italy, and Brazil. Before the war Germany was also an important consumer.

As a result of high prices and supply difficulties since the war, various attempts have been made to develop the use of substitutes for jute, such as re-inforced paper bags, or to dispense with it altogether, as in the shipment of such commodities as sugar in bulk, instead of in sacks. Efforts have also been made to grow jute in areas outside the Indian sub-continent and commercial production has been developed in Formosa and Brazil. At present cultivation experiments are being conducted in a number of Colonial territories.

Jute thrives best in damp heat. The round-pod *C.*

capsularis is grown more extensively than the long-pod *C. olitorius*. *C. capsularis* can thrive on inundated land and is grown in broad river valleys where much of the land is subject to overflow. *C. olitorius* cannot stand inundation and is cultivated on higher ground. Both species require a very fertile sandy loam or silt loam soil and a rainfall of over 40 inches so distributed that while the young plants have enough moisture, the bulk of the fall takes place when the crop is more mature, conditions which are ideally met in Bengal. The seed is sown broadcast and when the stalks are six feet to 12 feet high and beginning to produce flowers, about five months after sowing, they are cut by hand, tied in bundles and soaked in water to facilitate removal of the bark and fibre. This process, which is known as retting and determines the quality of the resultant fibre, may last from 10 to 25 days according to temperature. The fibre is softened both by the effect of the water, which dissolves the soluble contents of the cells, such as gums, etc., and by bacterial and fungoid action. After retting the fibre is stripped from the stalk by hand, washed and dried. The average yield of cleaned jute fibre is about 1,300 lb. per acre, the green stalks yielding about five per cent of their weight in dry fibre. A similar process of preparation is followed in most other soft stem fibres.

In India all these operations are carried out by hand, much of the work in many cases being done standing in two to three feet of water. Quantity production under these circumstances can only be achieved if a large number of workers are available who are willing to work under these unpleasant conditions. This problem of the supply of labour together with the special ecological conditions required accounts for the difficulty experienced in establishing jute as an economic crop in parts of the world other than Bengal, unless mechanical harvesting methods can be evolved.

The other soft fibres of major commercial importance are flax and hemp. *Flax* can adapt itself to climatic extremes but is mostly produced in temperate climates. After harvesting, the flax straw is retted, dried and finally scutched, a process which removes the foreign matter from the fibre. World production reached a peak of 896,000 tons in 1939, but declined sharply during the war, and to-day the chief exporters are Belgium, the Netherlands and Eire. Total world exports in 1949 were 84,000 tons, of which the above-mentioned three countries exported 69,000 tons. The United Kingdom was the largest importer of flax in 1949 (22,800 tons), France being the next with 14,500 tons. Small quantities are produced in Uganda.

Cannabinus sativa, hemp, sometimes called "true hemp," because other fibres are also given the name "hemp" such as sunn hemp (*Crotalaria juncea*), grows, like flax, mostly in temperate climates. World production was 435,000 tons in 1939, but declined steadily during the war years and was estimated at 243,000 tons in 1946. Production in 1949 outside the U.S.S.R., which is the chief producer but for which no recent figures are available, was 256,000 tons—slightly higher than the pre-war average. Italy and Yugoslavia—the two main producers outside the U.S.S.R.—accounted for 71,000 and 69,000 tons respectively. Italy was the chief exporter of hemp in 1949 with 36,000 tons, of which 4,400 tons went to the United Kingdom. France was also a large importer of hemp, taking 18,000 tons in that year.

The other soft fibres are of much less commercial importance and are only produced for export, if at all, by a few countries. Sunn hemp is mainly exported from India, whence the United Kingdom imported 13,000 tons in 1946. Bimli jute comes from the same source in small quantities. *Urena lovata* is exported from the Belgian Congo to Belgium in appreciable quantities. *Ramie* used to come from China in small quantities and the possibility of its production in the Colonies is under trial. The world-wide shortage of jute during and since the war has stimulated interest in possible substitute fibres some of which have been produced in appreciable quantities for local consumption, but no new soft fibre has so far established itself in world trade on a scale to rival those already well known.

Other Fibres

Of fibres to which the classification "hard" and "soft" does not apply, *coir* and *kapok* are of some importance.

Coir is the fibrous mass contained between the outer husk of the coconut and the shell of the inner kernel. In its best quality it is used for the manufacture of ropes, twine and mats; shorter and coarser qualities are employed as bristles for brooms and brushes or as stuffing of mattresses. Coir yarn is occasionally used for making bags.

The production of coir is carried on as a village industry in many tropical countries, but only Ceylon and India have developed an export trade in coir fibres and goods. Some Colonies, for instance Zanzibar and the Seychelles, produce coir rope for local use.

Kapok (*Ceiba pentandra*) is the fibre attached to the surface of the seed pods of the kapok tree. Although the tree is a native of Central America, most of the fibre comes now from Java; the kapok tree occurs also in the Philippines, South America, Jamaica and West and East Africa. The fibre is used for the stuffing of pillows and lifebelts and serves also as a sound and heat insulator, for instance in aeroplanes.

COLONIAL PRODUCTION

Hard Fibres

The Colonial Empire's main contribution to the world's fibre supply is in hard fibres, most of all in *sisal*. As mentioned previously, about 40 per cent of all sisal (including henequen) is produced at present in British East Africa. Tanganyika is the largest producer and sisal is that territory's chief export product, accounting in most years for at least 40 per cent of total exports in value. Of the East African total output of sisal roughly three-quarters comes from Tanganyika and one-quarter from Kenya and Uganda. There is also a small production, mainly for the local making of rope, in Nyasaland.

Sisal is produced in East Africa as an estate crop and practically the entire fibre output is exported, including the short fibre known as tow, which is used as stuffing for upholstery, etc. Sisal tow is, however, also used by a factory in Kenya for the manufacture of ropes, bags and coffee cloth for the local East African market. During the war, when the main supply of Manila hemp as well as of sisal from Java was cut off, East African sisal became of vital importance as the principal hard fibre freely available. Sisal was then used for a number of purposes for which normally other fibres such as manila or jute are employed. By priority supplies of tractors and other machinery, production of sisal was encouraged and reached a record level in 1945 of 144,000 tons. Kenya producers have set up the Kenya Sisal Marketing Board for the sale of their product, while Tanganyika sisal is sold partly on a co-operative basis and partly independently by individual growers. Sisal is one of the more important dollar-earning commodities produced in the Colonial Empire.

Very little sisal is grown in the Colonial Empire outside East Africa; small quantities are produced in Jamaica and in the Bahamas for local consumption.

The only production in the Colonial Empire of *Manila Hemp* is in North Borneo where a number of estates, mainly Japanese, were established before the war. During the war the estates were neglected and a virulent disease, "Bunchy Top," established itself. The Japanese estates were under the control of the Custodian of Enemy Property after the war. A company, in which the Colonial Development Corporation had a minority shareholding, was set up in 1949 to take over the five main ex-Japanese estates totalling some 14,000 acres, but differences of opinion between the Corporation and their partners developed in 1950. It was decided to dissolve the partnership, the Corporation taking over the remaining interest. Production since the war has been small, and ceased altogether in 1951 to permit re-planting and disease-control measures. It was anticipated that production would recommence in 1952. If this undertaking succeeds, it is hoped to expand output substantially. Since the shortage of manila hemp is expected to continue for a number of years and since in any case Philippine hemp has to be bought for dollars, the development of a source of supply of Manila hemp within the sterling area is a matter of significance. Manila hemp is also substitutable for sisal and is more economical in use.

Experimental growing of manila hemp in British Honduras has also been under consideration.

Phormium tenax (*New Zealand hemp*) is cultivated in St. Helena, where it is of considerable importance, being the Island's principal export product. Roughly 1,800 tons of hemp and tow were exported in 1950, mainly to the United Kingdom ; a small quantity of locally made rope is also exported, and some of the yarn is used locally in the manufacture of matting and sacks. Although acreage cannot be increased, output could be expanded by using improved strains and the quality of the fibre raised by improved processing. As a result of this investigation a major re-equipment of the industry has been put in hand.

Piassava is produced in the Colonial Empire mainly in West Africa. The chief source is Sierra Leone, where piassava swamps are met with over the greater part of the country, although the piassava industry is confined to the Southern Province. Two grades are marketed : *Sherbro* and the lower quality *Sulima*, and care is taken by the Government to ensure that only fibres up to standard are shipped. Exports of piassava fibre from Sierra Leone average 2,300 tons (1943-1948). There is also a small export from Sierra Leone of the softer raffia fibre derived from the cuticle of the leaves of the same plant and used for tying purposes.

Soft Fibres

Hibiscus cannabinus has been produced as a native crop in Nigeria from wild plants for a number of years. The stems are hand-retted by the natives. It is known locally as " rama " (not to be confused with " ramie," see below), but the word " rama " is a vague term applied generally in West Africa to fibres mainly of the hibiscus family. A factory for making sacks from rama fibre is under construction, and the Nigeria Government is encouraging native peasant production and marketing of the crop. Small amounts have also been exported.

These are the only occasions on which soft fibres have been exported in any quantities from the Colonial Empire, but there is a substantial production of many varieties of soft fibres in many Colonies for local use for making fishing nets, ropes, twines, bags, hats, etc.

Attention in recent years has, however, been concentrated on the possibility of growing *jute* or a suitable jute substitute in the Colonial Empire. Trial jute plantings have been carried out in the past in some Colonies without much success but trials have recently been repeated and extended to other colonies, and provided a satisfactory method of mechanically reaping and stripping the jute stalks is evolved it may be possible to undertake the commercial production of jute in Colonies where the ecological conditions are satisfactory.

Meanwhile a number of other fibres grown in the Colonies are being investigated as possible substitutes for jute, including *Urena lobata*, *Hibiscus cannabinus*, *Hibiscus sabdariffa* and *Crotalaria juncea*. As in the case of jute mechanical harvesting and/or decorticating methods would be necessary to permit production on an economic scale in view of the shortage of labour in the Colonies.

The cost of hand-stripping the ribbons of *Ramie* bark from the stems and the necessity for removing the gum contained in the fibre before it can be spun on textile machinery, have up to now prevented the production of this fibre in colonial territories. Methods of mechanical decortication are, however, being developed and an experimental scheme is being undertaken by the Colonial Development Corporation in British Honduras.

PRODUCTION OF CERTAIN FIBRES
1935-38 (*average*) *and* 1947-49
(000 lb.)

	1935-38 (*average*)	1947(1)	1948(1)	1949(1)
Abaca (Manila Hemp)				
Colonial Territories				
N. Borneo	1,324	Nil	1,344	1,796(6)
Others				
Philippines (2)	400,000	240,730	181,500	176,500
Central America	—	36,480	40,000	41,500
Agave (Sisal)				
Colonial Territories				
Tanganyika	198,950	236,436	270,193	276,170
Kenya	71,819	63,365	77,726	80,687
Uganda	2,593	1,904	3,362	2,119
Nyasaland	933	552	742	632(6)
Bahamas	1,642(6)	470(6)	571(6)	364(6)
Others				
Portuguese E. Africa	45,351	36,200	36,200	44,100
Portuguese W. Africa	11,480	27,900	27,900	36,000
Netherland Indies (3)	202,476	12,700	15,500	4,400
Haiti (5)	14,238	43,000	44,000	47,000
Brazil	(7)	33,000	38,500	58,800
Philippines (4)	41,609	16,700	7,756	7,500
Phormium Tenax (New Zealand Flax)				
Colonial Territories				
St. Helena	2,157(6)	2,636	3,044	3,987
Others				
New Zealand	14,329	8,707	10,000	11,000
Argentina	(7)	(7)	3,200	15,000

(1) " Others " estimated figures.
(2) Includes loose and unbaled fibre.
(3) Known as Indonesia since 20th September, 1948.
(4) Includes maguey and Canton fibre.
(5) Does not include hand cleaned fibre.
(6) Not available. Figures shown are reported exports.
(7) Negligible.

VEGETABLES, PULSES AND ROOT CROPS

While vegetables, pulses and root crops are grown in most parts of the Colonial Empire, production is almost entirely for local consumption and the export trade is very small. It is difficult, therefore, to assess accurately either the quantity produced or the acreages devoted to the various vegetable and root crops. But the importance of root crops in the local dietary in many Colonial territories is very great. In Nigeria, for example, it is estimated that there are some 1,400,000 acres under yams yielding 3,550,000 tons annually, 300,000 acres under cocoyams yielding 600,000 tons and 945,000 under cassava yielding 3,000,000 tons. Vegetables and pulses are also of importance in local diets.

The commonest root crops to be found in the colonies are yams, colocasia, sweet potatoes and manioc or cassava.*

YAMS

Yams, properly so-called, are different species and varieties of *Dioscerea*—herbaceous twiners, with or without prickles, producing large underground edible tubers. They are a staple foodstuff in many parts of the West African Dependencies and are also grown in the West Indies, parts of Malaya and the Dependencies in the Western Pacific.

COLOCASIA

Colocasia is a herbaceous tuberous perennial, which is known by a variety of names (such as coco-yam, taro and eddoe) in different territories. It is a plant of the arum family with large spherical rootstocks or corms, and is found in the same territories as yams.

TANNIAS

Tannias (*Xanthosoma sagittifolium*) are rootstocks or corms similar to coco-yams and are often confused with them. They are usually of larger size and form an important secondary foodstuff in the West Indies, especially in British Guiana.

SWEET POTATOES

The Sweet Potato (*Ipomaea Batatas*) is a trailing herbaceous plant producing large tuberous roots. It is probably of South American origin, but is now grown in all tropical colonies. It, too, is known by a number of local names. It is widely grown in Jamaica (40,000 acres) and in Barbados (8,000 acres).

POTATOES

Potatoes are grown in several territories. Cyprus is the main Colonial exporter both of seed and food potatoes. Exports are mainly to Israel and other East Mediterranean countries. Production from about 10,000 acres is 35,000-40,000 tons per annum. Exports in 1949 amounted to about 34,000 tons. In Malta, 25,000-30,000 tons are grown on 8,000 acres, but exports are only about 1,300 tons per year, most of which goes to the United Kingdom. Exports from Kenya, amounting to 2,500 tons in 1949, go mainly to neighbouring territories.

PULSES

Pulses are an important native foodstuff in many territories, particularly in East Africa. Cowpeas, pigeon peas or dhall, Dolichos, Lima beans, broad beans, lentils and peas constitute the more important of the pulse crops. It is estimated that there are over 300,000 acres under these crops in Kenya and 25,000 under cowpeas in Northern Rhodesia. Exports of pulses from Kenya in 1949 were about 2,500 tons.

A wide range of fresh vegetables is grown for local consumption in a number of territories where the climate is temperate (for example, Bermuda and the highlands of East Africa) and by the use of acclimatized seed the growing of European vegetables has steadily been extended to tropical areas. There are, however, only three vegetables from the colonies which are exported on any important scale—tomatoes, okras and onions.

TOMATOES

Tomatoes are of importance as an export crop in certain West Indian Islands, particularly the Bahamas. The principal market was formerly in the United States of America, but this trade almost came to an end in 1930 owing to a heavy increase in the import duty. Since then Canada has been the principal market and, with the exception of small supplies to neighbouring islands and to Bermuda, absorbed almost the whole of the tomato exports of the West Indies until 1948.

The following table, based on information in the Trade Statistics of Canada, shows imports of tomatoes from the West Indies into Canada for the years 1947-49 :—

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* For Cassava, see below under " Miscellaneous Products—Starch." Page 96.

CANADA: TOMATO IMPORTS FROM BRITISH WEST INDIES

	Quantity (lb.)			*Value* (Canadian $)		
	1947	1948	1949	1947	1948	1949
Bahamas	2,044,908	5,195,472	3,062,033	159,628	459,597	293,399
Jamaica	—	1,344,987	2,395,572	—	141,119	134,672
Leeward and Windward Islands†	—	78,851	215,902	—	7,376	25,930

† Principally from Montserrat, which in 1948 recommenced the export of tomatoes to Canada which had been in abeyance since the early years of the war.

Since 1948 Jamaica, where an export industry is of recent growth, has exported increasing quantities to the United Kingdom, as is shown in the following table :—

EXPORTS TO THE U.K. FROM JAMAICA

	Quantity lb.		*Value* £	
	1948	1949	1948	1949
Fresh tomatoes	450,936	2,539,056	9,384	34,898
Canned tomatoes	—	515,850	—	14,815

There is a cannery in the Bahamas and there are two canning and processing factories in Jamaica.

OKRA

The Okra is a tall malvaceous plant, *Hibiscus esculentus*, indigenous to Africa, but now cultivated in the East and West Indies and the Southern United States. The young mucilaginous capsules or " pods " are used as a vegetable or for thickening soup. Their production for export is a new industry in the Bahamas. During 1947 some 669,552 lb. were exported, valued at £17,629. During 1948 only 121,832 lb. were exported mainly because of market uncertainties at the time of planting. Exports in 1949 and 1950 were 848,960 lb. and 343,000 lb. respectively, valued at £19,356 and £8,486. They are nearly all exported to Canada and the U.S.A.

ONIONS

There are small exports from Cyprus and Malta. Cyprus exported 72,624 cwt. (principally to Palestine, Ceylon and Malaya) in 1948 and 51,897 cwt. in 1949. Malta exported 118,128 cwt. in 1939. The first post-war exports were made in 1948 and totalled only 5,320 cwt. Exports in 1950 were 16,317 cwt.

Amongst the other vegetables, either indigenous or acclimatised, which are widely grown in the Colonial territories are the eggplant (brinjal), chillies, gourds of several kinds, pumpkins and squashes and several varieties of spinach.

MISCELLANEOUS PRODUCTS

BEESWAX

The beeswax of commerce is obtained from wild bees and is not a by-product of the bee-keeping industry because its production seriously decreases the amount of honey obtained. Consequently in the Colonial Empire beeswax is collected from the nests of wild bees found mainly in forest areas.

The principal uses of beeswax are for the manufacture of polish, cables, pharmaceutical products, rope and twine, dental waxes, electrical accessories, boot and shoe finishes, candles and cosmetics. United Kingdom consumption is about 1,200 tons annually, but imports are about 2,000 tons, the balance being used for a valuable re-export trade in refined beeswax. About half the United Kingdom imports are obtained from the Colonial Empire, the other main source being Portugal.

Of the countries in the Colonial Empire from which beeswax has been exported by far the most important is Tanganyika, whence 676 tons were exported in 1938 and 525 tons in 1949. Other Colonies exporting appreciable quantities in 1949 were: Northern Rhodesia (30 tons), Kenya (60 tons), Nigeria (50 tons) and the Gambia (15 tons). Smaller amounts have come from Nyasaland, Zanzibar and Sierra Leone. The greater part of Colonial exports has been sent to the United Kingdom.

Of recent years the production of beeswax has been encouraged in other parts of the Colonial Empire. In the British West Indies a few hundredweights are being produced annually in Trinidad and smaller quantities in Jamaica and St. Lucia. North Borneo, Sarawak, Malaya, Uganda and Cyprus have also collected beeswax, but the quantities are usually very small.

BIRDS' NESTS

These nests, composed of a gelatinous substance produced from the saliva of a particular variety of swift, which form a highly prized delicacy at all Chinese banquets, are an export for which North Borneo is famous. The nests are of two types, the one black and the other white. The white are rare and are used locally or exported to Singapore; the black are sold to Hong Kong where they are cleaned and graded and they have in the past been re-exported to China. Eighteen tons were exported in 1939 with a value of £3,149; since the war prices have been much higher, and exports during 1949 were 22·3 tons with an estimated value of £17,147.

CAROBS

The *Carob* or *Locust Bean* is the fruit of an evergreen tree (*Ceratonia Siligua*) which grows abundantly in Cyprus (where it is estimated that there are about 2,000,000 carob trees) and various other Mediterranean countries; it has been introduced into South Africa, Australia, India and elsewhere. The beans are gathered when ripe and then crushed (or "kibbled"), either whole or after removal of the hard seeds, to form an ingredient in cattle cake. The value of the beans for this purpose lies chiefly in their sugar content, which makes cattle cake palatable and nourishing.

The manufacture of *gum* from carob seeds has been carried out for many years in Cyprus. The bean also yields a syrup which is used in the Levant for sweetmeats.

The greater part of Cyprus's exports are in the form of kibbled carobs, of which 40,398 tons, valued at £615,073, were exported in 1949, almost all to the United Kingdom and Palestine. Other carob exports in 1949 included 2,748 tons of whole carobs, valued at £51,913; 152 tons of carob gum, valued at £17,845; 11,635 gallons of carob juice, valued at £24,008; and 219 tons of carob germ, valued at £6,830.

CINCHONA BARK

This is the source of quinine. Cinchona was grown experimentally in Tanganyika before the war, and there were small exports of the bark to the United Kingdom. When during the war supplies from Java, the principal producing country, were cut off, a central organisation was established in East Africa to stimulate production of Cinchona. It was later wound up on the advent of synthetic anti-malarial drugs. But there is still a considerable demand for quinine as a curative agent for malaria, while quinidine, another derivative of Cinchona bark, is used in certain cardiac disorders and continues to provide a firm though minor demand for Cinchona bark. In Tanganyika production of the bark has varied between 49 and 92 tons during the post-war years, and increased plantings continue to take place.

HONEY

Honey is a minor Colonial product, but apiculture is practised in most Colonies although methods are sometimes primitive. The industry is most developed in the West Indies, and Jamaica is the largest Colonial exporter of honey, almost exclusively to the United Kingdom. Bee farmers are organised into the All-Island Bee Farmers' Association, which markets the crop in conjunction with the Department of Commerce and Industries. In 1949, 523 tons valued at £32,385 were shipped; in 1944 and 1947 exports were 901 and 609 tons respectively. The quality of the honey is good, the chief sources being the logwood areas which form excellent bee pastures. In 1948 there were 1,365 registered apiaries all of which are subject to inspection. Several outbreaks of American foul brood disease have been eradicated in past years. As in Trinidad the wax moth is the most important pest. In Trinidad and Tobago, the industry though on a smaller scale is well organised. There is an Inspector of Apiaries and in 1948 232 apiaries comprising 3,238 colonies were registered. The bulk of the honey produced is sold on the local market but 252 cwt. were exported in 1950 chiefly to the United Kingdom. St. Lucia exported 66 tons of honey in 1948 valued at £16,574 and 48 tons valued at £2,147 in 1949. Legislation has been enacted for disease control. There are small exports from Dominica and St. Vincent. In British Guiana a Honey and Preserves Association co-operates in the development of the industry.

There are some large apiaries in Cyprus, but the price of imported frame hives has restricted their adoption in place of more primitive equipment and hornets are a troublesome pest. Honey production in 1949 is recorded as 34 tons. Small quantities of Malayan honey are exported to adjacent countries.

To a large extent bee keeping in Africa still consists in the collection of honey and beeswax from wild or semi-wild bees and only limited modern equipment is used. In some areas the local industry is of considerable importance and the ownership of up to 100 hives is not unknown. Much of the honey produced in Africa is consumed locally. In East Africa equipment is generally primitive with much of the output of agriculture in the form of beeswax. (Bees require some 10 lb. of honey to produce 1 lb. of wax). Tanganyika is an important producer but her exports of honey are variable; in 1943 they were as high as 867 tons but in 1950 amounted to only 36 tons, valued at £2,549, most of which went to Kenya. The use of an improved "Sudan" type of hive has been encouraged. In West Africa the production of honey for local use was stimulated during the war. Technical guidance is provided by Departments of Agriculture and in most Colonies the first improvement attempted has been to encourage the use of queen excluders to give a two-compartment hive and avoid damage to the brood.

INSECTICIDES

The extraction of poisons from vegetable sources has been known for thousands of years, but it is only recently, with the large-scale demands for insecticides, that the cultivation of poisons has become a substantial agricultural activity. The industry is now threatened by the production of synthetic insecticides which are either direct substitutes for the agricultural product or have more potent properties in some or all of its uses. The long-term effects of insecticides can, however, only be determined by their use over long periods. The vegetable insecticides which have been used for many years without ill effects will therefore enjoy for some while longer at least this advantage over their new rivals.

Three insecticides are now produced on an appreciable scale in the Colonial Empire—pyrethrum, derris and nicotine. A fourth, ryania, grows in certain Colonies and is being developed.

Pyrethrum

Pyrethrum, Chrysanthemum cinerariaefolium of the family *Compositae*, is a plant, the flowers of which yield a valuable insecticide. Although known for at least a hundred years, and probably from much earlier times, it is only within a comparatively recent period that an exact knowledge has been obtained of the active insecticidal constituents (pyrethrins) of this plant. Natural pyrethrum is non-poisonous to human beings and animals. Pyrethrum is used either alone in powder form or as a constituent of insecticidal dusts and sprays and as an ingredient of the solutions used in high and low pressure aerosol bombs. An important characteristic of pyrethrum is the rapidity with which it causes paralysis or, as it is commonly called, " knock-down." Substances have been developed recently which, when added to pyrethrum, produce a synergistic effect, thereby increasing the toxicity of the pyrethrins. Pyrethrum has been successfully employed in insecticides for household, agricultural, horticultural and livestock purposes, and is being developed for use in the protection of stored foodstuffs and other vegetable products subject to insect attack. It has the disadvantage that it oxidises rapidly on exposure to light and air, so that surfaces sprayed with pyrethrum only remain toxic for a short while.

Pyrethrum can be grown either from seed or from cuttings or splits, the plants taking two years to come to maturity. The flowers are gathered by hand ; they are dried either in the air or in specially constructed drying sheds and are mostly exported in that form, after pressing into bales, although there is a factory in Kenya which extracts the active principles and exports the concentrated extract.

In 1937 the principal exporting countries were Japan (8,705 tons), Kenya (970 tons) and Yugoslavia (674 tons). The demand for Kenya pyrethrum increased rapidly from 1937 onwards, and in 1940 exports from British East Africa (Kenya, Tanganyika and Uganda) had risen to 5,129 tons. Production was further increased during the war owing to its importance for troop protection and the disappearance of the Japanese source of supply. In 1945, the peak year, it reached 7,400 tons. Sales fell in 1946 and 1947 owing to the existence of large carry-over stocks in the U.S.A. and Kenya and the much publicised use of synthetic insecticides. Production was cut by arranging a quota restriction on acreage planted in Kenya under statutory authority, as had been done before the war. Interest revived in 1949, and exports from British East Africa for that year were 3,966 tons, of which 3,588 tons valued at approximately £569,000 went to the U.S.A. About half of this amount, however, was from stocks produced in 1946 and 1947. Actual production in British East Africa for the years 1948 and 1949 was 1,557 tons and 1,516 tons respectively. Pyrethrum of high pyrethrin content has also been produced in the Belgian Congo since 1939. No supplies are available to-day from Japan or Yugoslavia.

Prices of East African pyrethrum which had been high during the war (£157 per ton) dropped in 1946, but subsequently recovered as demand in the United States increased again. The prices in 1949 increased from £175 per ton early in the year to £288 following the change in the dollar/sterling exchange rate. These prices were for pyrethrum flowers with 1·3 per cent pyrethrin content. An agreed differential in the price is made for other concentrations.

Two recent developments in the pyrethrum industry have been the introduction of new strains of the flower yielding higher percentages of pyrethrins, and the production of synthetic pyrethrins. These synthetics are more toxic than the natural product to some insects, but less so to others, and a more thorough study will have to be made of their toxicity to human beings and animals before they can be used with impunity on human or animal foodstuffs.

Derris

A number of species of the *Derris* or Tuba plant possess insecticidal properties, but two species, *D. elliptica* and *D. malaccensis*, are the most important and the varieties which have been cultivated commercially belong to one or other of them. Before the war this commodity was exported principally from Malaya, Sarawak, North Borneo, the Netherlands East Indies and the Philippine Islands. Malaya supplied some 70 per cent of the world's exports. Experimental cultivation was also being carried out in India, Fiji, Tanganyika, Mauritius, New Guinea and the Seychelles. Shipments have been made from Tanganyika since the war.

During the war many of the sources of derris root were lost, and insecticide manufacturers had to depend on *Lonchocarpus* from South America. Trade in derris root was slow in recovering after the war. In fact, after a temporary increase in exports, consisting mainly of stocks accumulated in the East during the war, exports dropped again to a very low level. The only recorded exports from Colonial territories since the war have been from Malaya, which had exported 764 tons in 1938 and 1,456 tons in 1939. Exports since the war have been at a much lower level, totalling 94 tons in 1948, 77 tons in 1949 and 47 tons in 1950. A small proportion of these totals represented re-exports.

The decline was largely due to the uprooting of the derris areas during the war to make way for foodstuffs. Production after the war was not encouraged because of the development of the synthetic insecticides which are claimed to be more generally effective and are more easily standardised, and, secondly, because manufacturers continued to use *Lonchocarpus* from Peru, which contains less resin and was found more convenient to handle. However, in 1950 there were signs of increasing demand for derris root in the United Kingdom owing to the decision of some users of synthetic insecticides that the toxic hazards were a handicap to application and, therefore, that less toxic materials were preferable, and also owing to the unsatisfactory condition in which supplies of *Lonchocarpus* were reaching the country.

The insecticidal properties of derris root depend on a number of substances which are soluble in organic solvents such as chloroform, acetone and ethyl acetate. Rotenone is the principal constituent, and probably the most important from an insecticidal point of view. The other related compounds are known, in some cases, to possess appreciable toxic effect on insects, but their value has not yet been fully assessed. Derris is used in dusting powders, aqueous suspensions and extracts.

Certain other leguminous plants are known to contain rotenone, and these include species of the genera *Lonchocarpus* (South America), *Tephrosia* (East Africa), *Mundulea* (East Africa) and *Millettia* (North-west India). *Lonchocarpus*, known also as " cube " " timbo " and " barbasco " already mentioned above, is the chief competitor of derris. Species of *Tephrosia, Mundulea* and *Millettia* which have been examined contain too little rotenone to be adopted commercially and have only a restricted local use.

Nicotine

Two species of *Nicotiana* are of importance in the production of nicotine. *N. tabacum* is the source of smoking tobacco and numerous varieties and strains of the species exist or are in cultivation. The waste from the tobacco industry is employed for the manufacture of a considerable proportion of the nicotine used in the insecticide industry. *N. rustica* on the other hand, although it is cultivated for local use as a smoking tobacco, is mainly used for the production of nicotine, and careful selection and cultivation have resulted in the introduction of varieties with a nicotine content up to 20 per cent. The average yield is 5 per cent to 7 per cent. Care must be taken that it is not grown so near *N. Tabacum* as to cause cross fertilisation of seed.

N. rustica has been grown successfully in East Africa, particularly in Uganda and Kenya. A factory has been set up in Uganda to convert the leaf to an impure nicotine sulphate. The 1949 Uganda crop amounted to 325 tons of *N. rustica* leaf. Small experimental areas have also been grown in Fiji and other Colonies.

Nicotine is most useful against insects having soft bodies and others of minute size, such as aphids, white flies, thrips, red spider, etc. The recent introduction of the organo-phosphorus insecticides has presented a threat to nicotine. It is not yet possible to say to what extent these synthetics will replace nicotine in commercial formulations, but the demand for nicotine shows signs of declining and United Kingdom stocks are increasing. United Kingdom production during the season September 1948 to August 1949 was 188,000 lb. (100 per cent nicotine content), mostly from home-produced tobacco scrap; United Kingdom imports during the same period amounted to 72,000 lb., mostly from Uganda. Uganda also sells to other countries, including South Africa.

Ryania

Ryania speciosa is a low shrub widespread in the forests of Trinidad, the Guianas, Venezuela, Brazil and Peru. The root and stem of this plant contain active principles which have recently been proved effective in the control of the European corn-borer; it is also considered to show promise against the oriental fruit moth and certain other crop pests. The active principles of the plant are stated to be alkaloids, the most important of which is known as ryanodine. Attempts are being made to develop a trade in this commodity from Trinidad.

LOOFAHS

Loofahs are the dried fibrous skeletons of the fruits of *Luffa cylindrica*, M. Roem.

In preparing loofahs, the freshly-cut fruits are softened in running water for some days, and the outer portion can then easily be removed by hand. After washing and rinsing and removing the seeds the fibrous skeleton is hung up in the sun to dry and bleach.

Loofahs vary in length from 4 inches to 20 inches or longer. The chief uses for loofahs are for insoles, friction gloves, washing pads, toilet and oil filtration purposes. The value varies according to the length, colour and the quality, sizes between 16 inches and 20 inches being most in demand.

Luffa species, either wild or cultivated, grow fairly readily in most warm countries, but Japan made a speciality of their production before the war and dominated world trade. Special varieties of the species are cultivated in Japan. Experiments made in other countries to cultivate the Japanese varieties have up till now not met with very great success.

Various species of the plant occur in many countries in the Colonial Empire, including the Gold Coast, Nigeria, Sierra Leone, Gambia, Tanganyika, Nyasaland, Uganda, Kenya, Cyprus, and the West Indies. Since the war the United Kingdom has been importing approximately half its supplies of loofahs from Japan, Belgium and the United States, and the other half from East Africa. The total value has been about £5,000 per annum. Interest has recently been shown in several Colonial countries in the production of loofahs, and samples have been received in the United Kingdom for preliminary reports on their market possibilities.

SILK

Silk is a fine filament, extruded by the silk worm and spun about itself in the form of an oval-shaped cocoon. Only about one-fifth of the cocoon consists of silk and of this only half may be suitable for reeling into the continuous filament yarn known as " nett " or " mulberry " silk. The silkworm is usually cultivated on the leaves of the mulberry tree, but it can live on a number of other trees. The worms will flourish anywhere not subject to extremes of temperature or of humidity. The most important cultivated worm is the *Bombyx Mori*, but silk is also obtained from about twenty-other varieties.

The two main areas for the production of raw silk before the war were the Far East and Europe. Japan was by far the biggest producer, producing 80 per cent of the silk available to international trade. China, India, Iran and Italy were the other main producers. Even before the war production of raw silk was declining, and after a partial recovery in 1939, the downward trend was continued. In Japan in particular the mulberry area was successively reduced from 1941 in order to intensify food production so that by 1946 Japan's production was approximately one-eighth of production in 1938. A similar decline occurred in most other producing countries, despite the strong demand for silk for military purposes ruling during the war years.

Exports of raw silk, which were approximately 76,000,000 lb. in 1938, dropped to a mere 205,000 lb. in 1945, but increased again to 17,000,000 lb. in 1946. World exports since then have varied between 5,000,000 lb. and 15,000,000 lb. per annum.

The demand for silk is mainly for use in luxury apparel. The development of rayon, however, before the war, restricted the demand for silk, particularly in the lower quality goods and the development of nylon during and since the war has very considerably ousted silk from its use in stockings. Silk was of strategic importance during the war for use in parachutes, but even here nylon was a competitor. The swing-over to artificial fibres has been accentuated since the war partly because of their lower prices.

The United States before the war was the greatest importer of raw silk, taking some 80 per cent of shipments from Japan. The United Kingdom and France were the next two important consumers although their imports were only about one-tenth of those of the United States. Total world imports in 1949 were only 4,000 tons, as compared with an average of 41,000 tons in the years 1934-38. Of total imports in 1949, the United States took 28·6 per cent, France 17·9 per cent, and the United Kingdom 14·5 per cent. Other importers included Switzerland (6·9 per cent) and Egypt (5·5 per cent).

The above account relates solely to the trade in cultivated or " mulberry " silk. In addition, however, a certain amount of " wild " silk, collected from wild silkworms, is also produced.

Colonial Production

Mulberry Silk. The production of mulberry silk has long been established in Cyprus. Elsewhere in the Colonial Empire attempts undertaken from time to time to establish sericulture have been unsuccessful hitherto, since apart from other difficulties, economic circumstances have often been unfavourable. Even in Cyprus, production of raw silk for world markets has not generally proved profitable.

In Cyprus silk-raising is organised as a part time cottage industry conducted by peasant women in their own houses (or outhouses). Cyprus sericulture has always been largely dependent on the indigenous hand reeling industry, the raw silk from which is woven locally. However, in 1925, in an attempt to develop Cyprus sericulture, a filature was established, but this was forced to close in 1934 by the low world silk prices of the 1930s. At that time there was some export of cocoons to France.

During the war the position changed temporarily as the Cyprus silk production was bought by the Ministry of Supply. The filature was reopened in 1943, and controls imposed under the Defence Regulations to ensure that the crop was machine-reeled. When controls were removed in the post-war period the local price for cocoons for hand reeling was too high in comparison with world silk prices to enable the filature to continue, and it had to close down again in 1947. A silk weaving plant commenced operations towards the end of 1949 in connection with the filature which operated again for a short time during the year.

Over the period 1935-39, Cyprus production averaged some 105,000 okes* of fresh cocoons per annum. By 1945 production had increased to about 116,000 okes per annum, but has since declined and amounted in 1949 to only 86,000 okes. Production of locally reeled silk increased during the war and reached a maximum of 128,000 okes in 1946. Since that time it has decreased progressively and in 1949 amounted to 9,250 okes.

A raw silk of good quality has always been produced by the Cyprus filature, when this has been able to operate. Apart from the economic position, a handicap to the Cyprus industry has been the dependence on a single early summer crop of cocoons. This weakness is well appreciated, but so far experiments directed towards the establishment of an autumn crop have been unpromising. A new Sericultural Station has recently been opened at Galata. Cyprus is noted for the excellence of its silkworm " seed " (eggs), which is produced under the close control of the Department of Agriculture. For a few years during the war an appreciable quantity was exported, but in normal circumstances there appears to be only very limited export demand.

Wild Silk. From time to time interest has arisen in the silk of the wild silkworms of tropical Africa belonging to the genera Anaphe and Epanaphe. At a period of silk scarcity during the recent war useful quantities were collected, chiefly in Nigeria. Serious collection of the nests of these silkworms tends to diminish supplies, and suggestions have been made for the exploitation of these species under conditions of semi-domestication. However, except in special circumstances it seems that an appreciable wild silkworm industry is likely to be uneconomic, so that the material will probably remain of local importance only.

STARCH

Starch is composed of amylose and amylopectin (which is the adhesive component) and the ratio of these two components affects its quality and uses. Starch is used for food purposes and also in a large number of industries. Maize, potato, wheat, tapioca and sago starches are required in the textile industry. Sago starch produces a light sizing used for dressing the yarn, while tapioca starch is used for finishing, i.e., for calico printing, etc. Starch is also used in paper making, and has some 30 other industrial uses. The shortage of raw materials during the war led to a greater inter-changeability of starches, but it still remains true that each starch is better for certain purposes than any of the others.

The only three starches which enter world trade from the colonies are arrowroot, sago and tapioca.

Arrowroot

Arrowroot starch is obtained from the underground stems of the arrowroot plant, *Maranta arundinacea.* Arrowroot is the most important crop in the island of St. Vincent, from which almost the whole world supply comes. In the years 1934-38 exports of arrowroot averaged about 3,250 tons annually rising gradually each year. In 1939 exports amounted to 5,250 tons, the peak figure. During the war much land previously grown to arrowroot was converted to production of food crops ; even so, exports for the years 1944-48 average 2,800 tons, of which 71 per cent went to the United States of America and 21 per cent to the United Kingdom. The value of arrowroot starch exports in 1948 (£163,775) comprised 42·1 per cent of the total exports. The greater part of the production is from estates, but some 12 per cent is peasant produced. All shipments are made through the St. Vincent Co-operative Arrowroot Association. The supplies are largely absorbed by the baking trade. In 1949 exports totalled approximately 3,400 tons, of which 2,400 tons went to the U.S.A., 700 tons to the United Kingdom and 300 tons to other countries including Canada.

Sago

Sago is a starch prepared from the pith of the stems of several palms, in particular the " sago palm " (*Metroxylon Rumphii* and *M. laeve*). The main stem of the tree attains a diameter of 1 ft. to 1 ft. 3 in. about 7 to 10 years after planting. It is then felled ; the outer cover is stripped ; and the pith is rasped and washed. The result is a starch which is then converted into either sago flour or pearl sago ; the latter, the merchandise of the grocery trade, is obtained by a process whereby the starch granules of the sago are burst. The main sources of supply are Sarawak, North Borneo and Indonesia. The first processing is done in the country of origin, but some sago flour is again processed in Singapore, where a certain amount is also converted into pearl sago. The principal purchasers are the United Kingdom, India and Japan.

Sarawak is the largest colonial producer. It is estimated that there are some 150,000 acres under sago palm, but no detailed information is available as to the number of palms per acre or their general condition. Since the war, production of sago has been at a high level, and for some time the rate of working was higher than the rate of regeneration and planting justified. Over 50,000 tons were exported in 1948, but only 38,000 tons in 1950.

In North Borneo the acreage under sago palm is considerably less and exports are much smaller since about one-tenth of the population uses sago rather than rice as its staple food.

During the war and until early in 1950 sago flour could be imported into the United Kingdom only on government account and its use in the food trade in this country was prohibited for some years. There are now no controls on the sale or use of sago flour and sago pearl.

Tapioca, Cassava, Manioc and Mandioca

These are the names in various parts of the world of a species of *Manihot,* " bitter cassava " (*Manihot utilissima*) and " sweet cassava " (*Manihot palmata* var. *aipi*). It is a native of tropical America but is now grown throughout the tropics. Both species are grown widely in East and West Africa, the Federation of Malaya, Mauritius, certain of the West Indies and the Dependencies in the Western Pacific. Since the roots can be left in the ground for up to two years without deteriorating, and the dried meal, prepared from the grated root, keeps for long periods, it is often grown as a famine reserve foodstuff. The roots of the sweet cassava can be eaten raw or cooked as a table vegetable, but those of the bitter cassava cannot be eaten uncooked. Both the sweet and the bitter cassava contain a glucoside which develops hydrocyanic or prussic acid. In the sweet cassava this glucoside is confined almost entirely to the skin of the root, but in the bitter kind it is more or less evenly distributed throughout the roots. The poisonous properties are, however, dissipated by heat.

Tapioca enters world trade as a starch in the form of tapioca flour or tapioca pearl, this latter being the form in which it is usually retailed in the United Kingdom. Before the war Indonesia was the principal exporter—the quantity exported in 1938 amounting to 243,000 tons—and the United States of America was the principal market. During the war years Brazil became the principal source of supply but the textile industry, both in the United States and elsewhere, very largely changed over to alternative starches, notably farina (potato starch) which is mainly produced in Holland and which has the advantage of being a perfectly standard product.

The Federation of Malaya is the only important Colonial exporter of tapioca, though there have been occasional exports of cassava, often in root form for animal feeding stuffs, from East Africa. The area under tapioca in the

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* One oke = 2·8 lb.

Federation was 36,000 acres in 1939 and had risen to 59,000 by 1946 as a result of the greater use of tapioca as a rice substitute during the war years. Since 1946 the area has decreased and in 1948 it was 42,000 and in 1949 41,000 acres. It is difficult to arrive at a true figure for Malaya's domestic exports owing to Singapore's entrepôt trade and importance as a processing centre, but the excess of exports over imports was 13,700 tons, 4,200 tons and 2,750 tons in 1947, 1948 and 1949 respectively. India took most of Malaya's exports before the war; since the war the United Kingdom, India, Australia and Burma have been the principal markets.

STROPHANTHUS

Strophanthus is the name of a genus of flowering creepers native to Tropical Africa of which the most important are *S. hispidus* and *S. kombe*.

The ripe seeds contain an active poison, which was long used by Africans for poisoning arrows; but they are also used for the production of strophanthine, which has medicinal properties in the treatment of cardiac affections. The plants are now grown for this latter purpose in Nyasaland, and exports, all to the United Kingdom, in 1949 and 1950 totalled 6,163 lb. and 6,222 lb. valued at £687 and £933 respectively.

Species of Strophanthus also occur in Africa which contain sarmentogenin from which cortisone has been prepared, a drug with which remarkable results have been achieved initially in the relief of rheumatoid arthritis. It is unlikely, however, that these species will prove to be an economic source of sarmentogenin.

VEGETABLE AND FLOWER SEEDS AND BULBS

A wide range of fresh vegetables has been grown in a large number of colonial territories for many years, but the seed was generally imported. During the war every effort was made to encourage the colonies, where possible, to produce their own seed locally.

In several colonies—notably Cyprus, Malta and Mauritius—it was already the practice of farmers to raise much of their own seed. In Kenya the production of certain classes of vegetable seed had received attention for some time, and immediately before the war commercial experiments had been started to test the possibility of raising seed of varieties of green pea with a view to establishing an export trade. The results were promising and some small trial shipments were made. This work was discontinued during the war, but has since been revived. Cyprus, Malta and East Africa now export considerable quantities of vegetable and some flower seeds, principally to this country.

In Cyprus the trade began in 1945 when vegetable seeds to the value of £250 were exported. In 1947 the first steps were taken toward the establishment of a flower seed export industry. The colony has concentrated primarily on the production of cauliflower, broccoli and lettuce seed, but has also carried out experiments with tomato, leek, spinach, carrot and sweet corn. The only flower seeds grown commercially so far have been zinnias and double hollyhocks. The industry is Government sponsored and controlled, but the seed is for the most part grown by local sub-contractors. Exports in 1948, practically all to the United Kingdom, were valued at just under £38,000; exports in 1949 amounted in value to £21,400. Cyprus has also for some years supplied seed potatoes to neighbouring countries; exports in 1948 amounted to 83,843 cwt. (of which Greece took 80 per cent) valued at £270,858, and in 1949 to 158,504 cwt. valued at £145,324.

In East Africa vegetable seed production is in the hands of a few European farmers. Kenya has resumed its production of green pea seed and Tanganyika has specialised in bean seed. Exports rose from 543 tons in 1946 to 1,685 tons of bean seeds and 63 tons of pea seeds in 1948. The value of the seeds exported was approximately £90,000 in 1948. Practically the whole of the Tanganyika production was from Arusha district.

In Malta the seed production industry started in 1942 as a Government venture. It was transferred to private hands in 1947 on the formation of Malta Seeds Limited, of which 75 per cent of the capital is held by United Kingdom seed merchants and 25 per cent by the Malta Farmers Central Co-operative Society, Limited.

The production of bulbs for export is restricted to two colonies—Bermuda and St. Helena—and to the Lily bulb only. In Bermuda it is a long established industry and is run in conjunction with an export of cut lilies. The United States of America is the principal country of destination. Exports of cut flowers and bulbs were valued at £22,458 and £4,507 respectively in 1948 out of total domestic exports of £30,128. The production of lily bulbs for export in St. Helena dates only from 1935, and the first exports of some 2,028 bulbs valued at £46 were made in 1936. In 1940 exports were 64,086 bulbs. Unfortunately during the early war years the undue prolongation of the voyages resulted in a large proportion of the bulbs being spoilt en route, and from 1943-45 it was found necessary to discontinue shipment entirely. The resuscitation of the industry since the war is proving difficult because of cultivation problems, and exports in 1949 amounted to only 4,864 bulbs.

A SUMMARY OF SOME SIGNIFICANT FIGURES

The table immediately following is designed to give a brief summary of the most important statistics relating to the Colonial Territories.

The following points should be noted :—

Col. II Area. The area of the Dependencies of the Falkland Islands, which are practically uninhabited, has been excluded since its inclusion would be definitely misleading.

Col. V Public Debt. The amounts shown are net amounts,—that is, the total Public Debt less the value of the sinking fund except where otherwise stated.

Cols. VI and VIII. Revenue and Expenditure figures include amounts shown under Colonial Development and Welfare and Grants-in-Aid (except for Mauritius).

Cols. X. The figures shown are those of total Imports. It is not possible to isolate the imports for domestic consumption.

Except for the columns showing area and population, the totals are inserted as an indication of order only. Many of the figures relating to individual territories are not strictly comparable with those relating to others, in that either they do not all relate to the same year or conform to a common definition. It is therefore not strictly correct to provide totals, but a rough indication of the general level of these totals for comparison with those in earlier editions of the Survey is of interest, and such figures have therefore been inserted.

The value of " Total Exports " (i.e., domestic exports *plus* re-exports) shown in the following table amounts to £756 million, or £325 million more than the total for 1949 of the value of principal domestic exports shown in the table on page 5 of this volume. Of this £325 million, the exports of Hong Kong and Aden, none of whose exports are included in the table on page 5, amounted to £170 million, re-exports from Malaya of products exported from the Borneo territories and elsewhere and minor exports from these territories to about £100 million, and exports of minor products and re-exports from other Colonial territories to about £55 million.

(*a*) Area in square miles includes water in the following Colonies :—Kenya (5,230), Uganda (13,680), Tanganyika (19,982), Northern Rhodesia (8,000), Nyasaland (10,575).

(*b*) 1948 mid-year estimate.

(*c*) 1950 mid-year estimate.

(*d*) 1948 figure.

(*e*) Gross figure.

(*f*) 1950 figure.

(*g*) 1947 gross figure.

(*h*) For year ended 31st March, 1950.

(*i*) Figures include the East African Joint Services.

(*j*) Including appropriations to Development Fund.

(*k*) Estimated figures.

(*l*) Figures exclude Grants-in-aid.

(*m*) Annual Grants-in-aid to meet Turkish debt charges are excluded throughout.

(*n*) 1st April—31st December, 1949.

(*o*) For the year ended 30th June, 1950.

(*p*) Figures do not include amounts shown under Colonial Development and Welfare and Grants-in-aid.

(*q*) Includes transfer of imported merchandise from other East African Territories.

(*r*) Figures are f.o.b. prices at port of shipment and f.o.r. at place of despatch.

(*s*) Includes overland trade.

(*t*) 1947 figures.

(*u*) Not available.

(*v*) Estimated figure.

(*w*) 1946 census.

A SUMMARY OF SOME SIGNIFICANT FIGURES CONCERNING THE COLONIAL TERRITORIES

(1949 figures unless otherwise stated)

Colony, etc.	Area in Square Miles	Population Mid-Year Estimate	Density of Population per Square mile	Public Debt (Less Value of Sinking Fund)	Actual Revenue	Per Head of Population	Actual Expenditure	Per Head of Population	Total Imports	Domestic Exports	Total Exports
East and Central Africa				(£000)	(£000)	£ s. d.	(£000)	£ s. d.	(£000)	(£000)	(£000)
Somaliland Protectorate ..	68,000	500,000	7·4	Nil	423 (*h*)	16 0	1,118 (*h*)	2 4 6	844	579	660
Kenya	224,960 (*a*)	5,406,000 (*b*)	24·0	21,443 (*d*)	14,388(*j*)(*i*)	2 13 0	14,985(*j*)(*i*)	2 15 6	52,445 (*q*)	10,964	28,465 (*q*)
Uganda	93,981 (*a*)	5,050,000	53·7	1,173 (*d*)	8,094	1 12 0	6,687	1 6 6	12,588 (*q*)	23,433	23,805 (*q*)
Tanganyika	362,688 (*a*)	7,478,000 (*b*)	20·6	3,963	11,373(*j*)(*k*)	1 10 6	10,560(*j*)(*k*)	1 8 0	26,259 (*q*)	19,233	20,444 (*q*)
Zanzibar and Pemba ..	1,020	269,000	263·7	Nil	1,025	3 16 0	1,083	4 0 6	2,750	2,100	2,688
Northern Rhodesia	290,323 (*a*)	1,866,000 (*c*)	6·4	4,656	10,584	5 13 5	10,100 (*j*)	5 8 3	21,266 (*r*)	32,753	33,122 (*r*)
Nyasaland	48,444 (*a*)	2,349,000 (*c*)	48·5	2,707	2,588	1 2 0	2,745	1 3 6	5,592	4,690	4,730
Total	1,089,416	22,918,000	21·04	33,942	48,475	2 2 3	47,258	2 1 3	121,744	(*u*)	113,914
West Africa											
Gambia	4,003	268,000	66·9	22	964	3 12 0	1,173	4 7 6	2,185	(*u*)	1,618
Gold Coast	91,843	4,118,000 (*b*)	44·8	6,476	18,106 (*h*)	4 8 0	14,144 (*h*)	3 8 6	44,493 (*s*)	46,843 (*s*)	49,654 (*s*)
Nigeria	372,674	25,000,000	67·1	13,425	30,765 (*h*)	1 4 6	28,253 (*h*)	1 2 6	57,539	78,373	80,241
Sierra Leone	27,925	1,880,000 (*c*)	67·3	724	2,730	1 9 0	2,458	1 6 0	5,809	4,243	4,664
Total	496,445	31,266,000	62·44	20,647	52,565	1 13 11	46,028	1 9 8	110,026	(*u*)	136,177
Eastern Group											
Federation of Malaya	50,690	5,227,000 (*c*)	103·1	26,925 (*e*)	40,237 (*k*)	7 14 0	37,404 (*k*)	7 3 0	62,745	(*u*)	73,164
Singapore (incl. Dependencies) ..	291	1,018,000 (*c*)	3,498·2	50,000 (*e*)	12,638	12 8 6	10,841	10 13 0	153,423	(*u*)	127,757
Brunei	2,226	42,000	18·9	Nil	1,019	24 5 6	493	11 15 0	4,159	(*u*)	7,251
North Borneo	29,387	344,000	11·7	(*u*)	1,293 (*l*)	3 15 0	1,140 (*l*)	3 6 0	3,963	4,400	4,491
Sarawak	47,071	550,000	11·7	Nil	1,901 (*k*)	3 9 0	2,136 (*k*)	3 17 6	12,822	(*u*)	21,890
Hong Kong	391	2,260,000 (*c*)	5,780·1	3,773	16,516 (*h*)	7 6 0	11,383 (*h*)	5 0 6	171,850	(*u*)	144,938
Total	130,056	9,441,000	72·59	80,698	73,604	7 15 11	63,397	6 14 4	408,962	(*u*)	379,491
Mediterranean											
Cyprus	3,572	484,000 (*c*)	135·5	4,983 (*f*)	4,958 (*m*)	10 5 0	4,595 (*m*)	9 10 0	11,009	7,606	8,243
Gibraltar	2	25,000	11,111·1	(*u*)	1,021	40 17 0	1,237	49 1 6	4,355	(*u*)	527
Malta	122	311,000	2,549·2	Nil	5,557 (*h*)	17 17 6	5,911 (*h*)	19 0 0	15,260	326	1,037
Total	3,696	820,000	222·66	4,983	11,536	14 0 4	11,743	14 5 4	30,624	(*u*)	9,807
West Indies Group											
Bahamas	4,404	77,000	17·5	70	1,330	17 5 6	1,510	19 12 0	4,776	488	657
Barbados	166	205,000	1,234·9	364	2,001 (*h*)	9 15 0	2,151 (*h*)	10 9 6	7,065	4,359	4,654
Bermuda	21	37,000 (*c*)	1,761·9	188	1,886	50 19 6	1,707	46 2 6	7,182	41	943
British Guiana	83,000	414,000	5·0	4,478	4,879	11 15 6	4,652	11 4 6	10,610	9,566	9,637
British Honduras	8,867	65,000	7·3	199	921	14 3 6	955	14 13 0	1,486	837	1,133
Jamaica	4,411	1,374,000	311·5	8,834	9,960(*h*)(*k*)	7 5 0	10,257(*h*)(*k*)	7 9 0	19,225	11,843	12,137
Cayman Islands	93	6,800 (*b*)	73·1	5	52(*h*)(*k*)	7 13 0	51(*h*)(*k*)	7 10 0	144	(*u*)	23
Turks and Caicos Islands ..	202	6,500 (*b*)	32·2	Nil	100(*h*)(*k*)	15 7 6	95(*h*)(*k*)	14 12 0	103	(*u*)	79

A SUMMARY OF SOME SIGNIFICANT FIGURES CONCERNING THE COLONIAL TERRITORIES—(*continued*)

(1949 figures unless otherwise stated)

Colony, etc.	*Area in Square Miles*	*Population Mid-Year Estimate*	*Density of Population per Square mile*	*Public Debt (Less Value of Sinking Fund)*	*Actual Revenue*	*Per Head of Population*	*Actual Expenditure*	*Per Head of Population*	*Total Imports*	*Domestic Exports*	*Total Exports*
West Indies Group—(*continued*)											
Leeward Islands				(£000)	(£000)	£ s. d.	(£000)	£ s. d.	(£000)	(£000)	(£000)
Antigua..	171	44,000	257·3	55	407	9 5 0	412	9 7 6	908	(*u*)	48
St. Christopher-Nevis ..	153	47,000	307·2	19	411	8 15 0	410	8 14 6	955	1,012	1,038
Montserrat	32	13,500 (*c*)	421·9	20 (*e*)	119	8 16 0	102	7 11 0	145	(*u*)	184
Virgin Islands	67	5,600	83·6	Nil	54	9 13 0	52	9 5 6	105	(*u*)	36
Trinidad and Tobago	1,980	611,000	308·6	6,560 (*d*)	10,599	17 7 0	8,819	14 8 6	32,128	27,456	28,833
Windward Islands											
Dominica	305	52,000	170·5	50 (*g*)	272	5 4 6	291	5 12 0	494	(*u*)	294
Grenada	133	75,000	563·9	202	552	7 7 0	659	8 15 6	1,087	879	917
St. Lucia	233	76,000	326·2	560	606	7 19 6	623	8 4 0	96	(*u*)	316
St. Vincent	150	66,000	440·0	97	381	5 15 6	375	5 13 6	136	(*u*)	102
Total	104,388	3,168,400	30·35	21,701	34,530	10 17 11	33,121	10 9 1	86,645	(*u*)	61,031
Western Pacific Group											
Fiji..	7,036	281,000	39·9	1,339 (*d*)	2,914 (*j*)	10 7 6	2,507 (*j*)	8 18 6	6,298	5,783	6,166
Western Pacific High Commission Territories											
Gilbert and Ellice Islands ..	375	37,000	98·6	Nil	279(*n*)(*k*)	7 11 0	279(*n*)(*k*)	7 11 0	100	(*u*)	227
New Hebrides..	5,700	47,000	8·2	(*u*)	188	4 0 0	109	2 6 6	400 (*t*)	(*u*)	988 (*t*)
British Solomon Islands ..	14,600	90,000	6·2	Nil	324(*n*)(*k*)	3 12 0	324(*n*)(*k*)	3 12 0	450	(*u*)	583
Tonga	269	46,000	171·0	Nil	313(*o*)(*k*)	6 16 0	232(*o*)(*k*)	5 1 0	583	811	811
Total	27,980	501,000	17·9	1,339	4,036	8 1 1	3,451	6 17 2	7,831	(*u*)	8,775
Atlantic and Indian Oceans											
Falkland Islands Colony ..	4,618	2,300	0·5	Nil	170	73 18 0	164	71 6 0	1,998	3,296	4,012
St. Helena and Dependencies ..	119	4,800	43·9	(*u*)	123 (*k*)	23 11 0	117 (*k*)	22 8 0	135	107	107
Aden (incl. Protectorate) ..	112,080	731,000	6·5	Nil	1,121 (*h*)	1 10 6	1,200 (*h*)	1 13 0	24,565	(*u*)	26,144
Mauritius and Dependencies ..	809	475,000	587·1	3,106	3,841(*p*)(*o*)(*k*)	8 1 6	3,702(*p*)(*o*) (*k*)	7 16 0	11,018	12,051	12,231
Seychelles	157	35,000	222·9	20	252	7 4 0	302	8 12 6	382	(*u*)	407
Total	117,783	1,248,100	10·6	3,126	5,507	4 8 3	5,485	4 7 11	38,098	(*u*)	42,901
South Africa High Commission Territories											
Basutoland	11,716	556,400 (*w*)	47·5	Nil	981	1 15 0	990	1 15 6	2,244	1,275	1,275
Bechuanaland Protectorate ..	275,000	294,000 (*w*)	1·1	Nil	501	1 14 0	576	1 19 0	1,315	(*u*)	1,160
Swaziland	6,704	181,000 (*w*)	27·0	36	478	2 12 6	541	2 19 6	(*u*)	(*u*)	1,627 (*v*)
Total	293,420	1,031,400	3·52	36	1,960	1 18 0	2,107	2 0 10	3,559	(*u*)	4,062
Grand total	2,263,184	70,000,000	30·93	166,472	232,213	3 6 4	212,590	3 0 9	807,489	(*u*)	756,158

TABLES OF EXPORTS

showing the Domestic Exports of
Major Commodities, with their Destinations,
for the years
1938, 1939, 1946, 1947, 1948 and 1949

INTRODUCTORY NOTES TO TABLES

1. The data contained in the following tables, which are derived from the various external trade returns issued by the Colonial territories, relate in most cases to DOMESTIC EXPORTS (i.e., they exclude re-exports). In the cases where the sources do not distinguish between exports and re-exports, total exports are given in the tables and the relevant imports, where substantial, are shown in footnotes.

2. In the tables, the following terms have the meanings stated below :—

(*a*) " **Other parts of the Sterling Area** " includes Australia (and dependent territories), Bahrein, Burma, Ceylon, India, Iraq, Irish Republic, Kuwait, New Zealand (and dependent territories), Pakistan, Southern Rhodesia, Union of South Africa.

(*b*) " **U.S.A., etc., and the Philippines** " includes Alaska, Puerto Rico, Virgin Islands (U.S.A.) and Hawaii.

(*c*) " **Other Countries** " includes Ships' Stores and Bunkers.

(*d*) " **Inter-colonial Trade** " relates to trade between the Colonial territory concerned and all other Colonial territories, even though the goods are subsequently re-exported by the importing territory.

3. The use of such terms as " Other Countries," " Other British Countries," etc., in the sources means that the geographical breakdown is only approximately correct, but it is considered that the error arising from this cause is of small magnitude.

4. Local currency has been converted into pounds sterling at the average rate ruling during each year under review.

5. Where a Colonial territory's annual export of a given commodity did not, in any of the years under review, exceed £5,000, the relevant data have been excluded, but the territory is named in a footnote to the table concerned.

6. Dominica, included in the Windward Islands since 1940, was part of the Leeward Islands in 1938 and 1939, but has been shown separately for all years. In the case of Brunei and Sarawak, the figures shown for 1946 relate generally to the second half of the year, and 15th April to 31st December respectively

7. The symbols shown below have the following meanings :—

— nil or less than one-half of the quantity or value unit employed.

.. not available.

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A. FOODSTUFFS AND TOBACCO

TABLE 1: BANANAS (FRESH)

Colony, etc.	Year	Unit	Quantity								Value (£)							
			U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa																		
Gold Coast ..	1938	Tons	1,187	—	—	—	—	1,187	—	1,187	7,210	—	—	—	—	7,210	—	7,210
	1939	,,	946	—	—	—	—	946	—	946	4,309	—	—	—	—	4,309	—	4,309
	1946	,,	—	—	—	—	13	13	—	13	—	—	—	—	122	122	—	122
	1947	,,	—	—	—	—	8	8	—	8	—	—	—	—	89	89	—	89
	1948	,,	—	—	—	—	11	11	—	11	—	—	—	—	110	110	—	110
	1949	,,	—	—	—	—	7	7	—	7	—	—	—	—	95	95	—	95
Nigeria (1) ..	1938	,,	4,663	—	—	—	50,543	55,206	—	55,206	23,885	—	—	—	253,665	277,550	—	277,550
	1939	,,	14,972	—	—	—	46,878	61,850	—	61,850	79,048	—	—	—	235,115	314,163	—	314,163
	1946	,,	4,583	—	—	—	3	4,586	—	4,586	20,280	—	—	—	19	20,299	—	20,299
	1947	,,	19,882	—	—	—	3	19,885	—	19,885	636,224	—	—	—	25	636,249	—	636,249
	1948	,,	51,153	—	—	—	4	51,157	—	51,157	1,346,433	—	—	—	27	1,346,460	—	1,346,460
	1949	,,	64,952	—	—	—	—	64,952	—	64,952	1,935,036	—	—	—	8	1,935,044	—	1,935,044
Totals	1938	Tons	5,850	—	—	—	50,543	56,393	—	56,393	31,095	—	—	—	253,665	284,760	—	284,760
	1939	,,	15,918	—	—	—	46,878	62,796	—	62,796	83,357	—	—	—	235,115	318,472	—	318,472
	1946	,,	4,583	—	—	—	16	4,599	—	4,599	20,280	—	—	—	141	20,421	—	20,421
	1947	,,	19,882	—	—	—	11	19,893	—	19,893	636,224	—	—	—	114	636,338	—	636,338
	1948	,,	51,153	—	—	—	15	51,168	—	51,168	1,346,433	—	—	—	137	1,346,570	—	1,346,570
	1949	,,	64,952	—	—	—	7	64,959	—	64,959	1,935,036	—	—	—	103	1,935,139	—	1,935,139
West Indies																		
British Honduras..	1938	Bunches	—	—	776,172	—	—	776,172	—	776,172	—	—	57,851	—	—	57,851	—	57,851
	1939	,,	—	—	522,563	—	—	522,563	15	522,578	—	—	41,860	—	—	41,860	2	41,862
	1946	,,	—	—	84,798	—	—	84,798	—	84,798	—	—	12,154	—	—	12,154	—	12,154
	1947	,,	—	—	162,327	—	—	162,327	—	162,327	—	—	21,351	—	—	21,351	—	21,351
	1948	,,	33	—	113,886	—	—	113,919	—	113,919	2	—	16,141	—	—	16,143	—	16,143
	1949	,,	—	—	58,056	—	—	58,056	—	58,056	—	—	9,496	—	—	9,496	—	9,496
Jamaica	1938	Stems	19,878,308	—	—	2,316,056	1,616,973	23,811,337	—	23,811,337	2,409,705	—	—	320,855	186,396	2,916,956	—	2,916,956
	1939	,,	16,454,423	—	—	1,654,463	662,742	18,771,628	—	18,771,628	2,105,023	—	—	252,999	81,155	2,439,177	—	2,439,177
	1946	,,	4,649,917	—	119,688	1,043,035	—	5,812,640	—	5,812,640	1,242,027	—	22,783	365,932	—	1,630,742	—	1,630,742
	1947	,,	5,519,526	—	—	—	—	5,519,526	—	5,519,526	2,049,259	—	—	—	—	2,049,259	—	2,049,259
	1948	,,	6,049,251	—	45,787	—	—	6,095,038	—	6,095,038	2,307,856	—	13,208	—	—	2,321,064	—	2,321,064
	1949	,,	6,563,378	—	—	—	—	6,563,378	—	6,563,378	2,270,507	—	—	—	—	2,270,507	—	2,270,507
Trinidad & Tobago	1938	Tons	—	—	—	1,570	—	1,570	2	1,572	—	—	—	9,167	—	9,167	7	9,174
	1939	,,	—	—	—	1,036	—	1,036	—	1,036	—	—	—	5,273	—	5,273	1	5,274
	1946	,,	—	—	—	—	36	36	—	36	—	—	—	—	1,015	1,015	—	1,015
	1947	,,	—	—	—	—	29	29	—	29	—	—	—	—	917	917	—	917
	1948	,,	—	—	—	—	24	24	—	24	—	—	—	—	1,122	1,122	4	1,126
	1949	,,	—	—	354	—	43	397	—	397	—	—	11,610	—	1,312	12,922	—	12,922
Domiaica	1938(3)	Bunches	—	—	4,619	65,627	15	70,261	46	70,307	—	—	230	6,846	1	7,077	3	7,080
	1939(3)	,,	—	—	4,136	38,105	—	42,241	62	42,303	—	—	200	3,413	—	3,613	5	3,618
	1946	,,	—	—	—	—	—	—	3,602	3,602	—	—	—	—	—	—	232	232
	1947	,,	—	—	2,389	—	—	2,389	4,874	7,263	—	—	488	—	—	488	1,042	1,530
	1948	,,	—	—	4,183	—	—	4,183	10,548	14,731	—	—	837	—	—	837	2,110	2,947
	1949	,,	110,149	—	—	—	4,323	114,472	6,204	120,676	27,507	—	—	—	868	28,375	1,099	29,474
Grenada	1938	Stems	—	—	—	106,306	120	106,426	—	106,426	—	—	—	11,133	1	11,134	—	11,134
	1939	,,	—	—	—	108,300	193	108,493	—	108,493	—	—	—	10,637	4	10,641	—	10,641
	1946	,,	—	—	—	—	—	—	3,713	3,713	—	—	—	—	—	—	427	427
	1947	,,	—	—	9,546	—	—	9,546	267	9,813	—	—	2,416	—	—	2,416	43	2,459
	1948	,,	—	—	14,584	—	866	15,450	145	15,595	—	—	4,821	—	126	4,947	27	4,974
	1949	,,	—	—	12,124	3,340	2,798	18,262	—	18,262	—	—	3,392	1,000	551	4,943	—	4,943

TABLE I: BANANAS (FRESH)—(continued)

Colony, etc.	Year	Unit	Quantity								Value (£)							
			U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Indies— *(continued)*																		
St. Lucia	1938	Bunches	—	—	—	95,541	—	95,541	5,185	100,726	—	—	—	13,467	—	13,467	101	13,568
	1939	,,	—	—	—	72,543	—	72,543	1,953	74,496	—	—	—	6,498	—	6,498	87	6,585
	1946	,,	..	..	..	..	..	..	..	66	..	..	..	..	..	..	..	11
	1947	,,	..	..	..	..	..	..	..	1,511	..	..	..	..	..	..	..	304
	1948	,,	..	..	..	..	..	..	..	2,033	..	..	..	..	..	..	..	433
	1949	,,	—	—	—	—	—	—	119	119	—	—	—	—	—	—	31	31
Totals (excluding St. Lucia) (2)	1938	Tons	331,009	—	17,325	42,509	26,928	417,771	2	417,773	2,409,705	—	57,851	341,155	186,397	2,995,108	7	2,995,115
	1939	,,	273,996	—	11,664	31,003	11,040	327,703	—	327,703	2,105,023	—	41,860	268,909	81,159	2,496,951	3	2,496,954
	1946	,,	77,429	—	3,886	17,368	36	98,719	147	98,866	1,242,027	—	34,937	365,932	1,015	1,643,911	659	1,644,570
	1947	,,	91,910	—	3,879	—	29	95,818	93	95,911	2,049,259	—	24,255	—	917	2,074,431	1,085	2,075,516
	1948	,,	100,732	—	3,705	—	43	104,480	191	104,671	2,307,858	—	35,007	—	1,248	2,344,113	2,141	2,346,254
	1949	,,	111,259	—	1,921	75	182	113,437	111	113,548	2,298,014	—	24,498	1,000	2,731	2,326,243	1,099	2,327,342
Western Pacific																		
Fiji	1938	Bunches	—	298,763	—	16,162	—	314,925	—	314,925	—	63,374	—	2,912	—	66,286	—	66,286
	1939	,,	—	111,824	—	2,756	—	114,580	—	114,580	—	23,297	—	496	—	23,793	—	23,793
	1946	,,	—	173,836	—	32	—	173,868	—	173,868	—	45,026	—	8	—	45,034	—	45,034
	1947	,,	—	242,206	—	—	—	242,206	—	242,206	—	65,645	—	—	—	65,645	—	65,645
	1948	,,	—	287,604	—	1,531	34	289,169	202	289,371	—	85,078	—	428	13	85,519	63	85,582
	1949	,,	—	324,976	—	7,197	4	332,177	181	332,358	—	105,545	—	1,617	1	107,163	66	107,229
Tonga	1938	Cases	—	10,825	—	—	—	10,825	—	10,825	—	2,806	—	—	—	2,806	—	2,806
	1939	,,	—	31,022	—	—	5	31,027	—	31,027	—	9,620	—	—	1	9,621	—	9,621
	1946	,,	—	80,286	—	—	—	80,286	—	80,286	—	36,084	—	—	—	36,084	—	36,084
	1947	,,	—	42,115	—	—	—	42,115	3	42,118	—	21,082	—	—	—	21,082	1	21,083
	1948	,,	—	51,025	—	—	—	51,025	—	51,025	—	30,787	—	—	—	30,787	—	30,787
	1949	,,	—	45,556	—	—	—	45,556	—	45,556	—	28,538	—	—	—	28,538	—	28,538
Totals (2)	1938	Tons	—	6,389	—	325	—	6,714	—	6,714	—	66,180	—	2,912	—	69,092	—	69,092
	1939	,,	—	3,754	—	55	—	3,809	—	3,809	—	32,917	—	496	1	33,414	—	33,414
	1946	,,	—	6,360	—	1	—	6,361	—	6,361	—	81,110	—	8	—	81,118	—	81,118
	1947	,,	—	6,370	—	—	—	6,370	—	6,370	—	86,727	—	—	—	86,727	1	86,728
	1948	,,	—	7,600	—	31	1	7,632	4	7,636	—	115,865	—	428	13	116,306	63	116,369
	1949	,,	—	8,155	—	145	—	8,300	4	8,304	—	134,083	—	1,617	1	135,701	66	135,767
Grand Totals (Excluding St. Lucia) (2)	1938	Tons	336,859	6,389	17,325	42,834	77,471	480,878	2	480,880	2,440,800	66,180	57,851	344,067	440,062	3,348,960	7	3,348,967
	1939	,,	289,914	3,754	11,664	31,058	57,918	394,308	—	394,308	2,188,380	32,917	41,860	269,405	316,275	2,848,837	3	2,848,840
	1946	,,	82,012	6,360	3,886	17,369	52	109,679	147	109,826	1,262,307	81,110	34,937	365,940	1,156	1,745,450	659	1,746,109
	1947	,,	111,792	6,370	3,879	—	40	122,081	93	122,174	2,685,483	86,727	24,255	—	1,031	2,797,496	1,086	2,798,582
	1948	,,	151,885	7,600	3,705	31	59	163,280	195	163,475	3,654,291	115,865	35,007	428	1,398	3,806,989	2,204	3,809,193
	1949	,,	176,211	8,155	1,921	220	189	186,696	115	186,811	4,233,050	134,083	24,498	2,617	2,835	4,397,083	1,165	4,398,248

N.B.—Other Exporters (See Introductory Note 5) : Sierra Leone ; British Guiana ; St. Vincent.

(1) Figures for 1947, 1948 and 1949 adjusted for undervaluation.

(2) Conversions to weight for Totals have been made at the following rates :—

1 Bunch or Stem = 37·3 lbs. (Jamaica) ; 40 lbs. (Leeward Islands) ; 45 lbs. (Fiji) ; 50 lbs. (British Honduras, St. Lucia, Grenada).
1 Case = 80 lbs. (Tonga).

(3) In these years Dominica was included in the Leeward Islands and no destination breakdown by island is available. These figures, include small exports from the rest of the Presidencies.

TABLE 2: GRAPEFRUIT

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Mediterranean																		
Cyprus	1938	Nos.	933,734	—	—	—	45,184	978,918	2,400	981,318	3,396	—	—	—	222	3,618	13	3,631
	1939	,,	3,282,214	—	—	—	1,100	3,283,314	—	3,283,314	8,975	—	—	—	3	8,978	—	8,978
	1946	,,	4,267,457	—	—	—	875,616	5,143,073	48,266	5,191,339	37,991	—	—	—	8,749	46,740	500	47,240
	1947	,,	12,656,392	—	—	—	337,705	12,994,097	16,752	13,010,849	119,753	—	—	—	3,112	122,865	160	123,025
	1948	,,	10,863,794	224,760	—	—	380,018	11,468,572	266,544	11,735,116	94,149	2,100	—	—	3,567	99,816	2,593	102,409
	1949	,,	9,111,018	—	—	—	2,718,639	11,829,657	178,846	12,008,503	84,618	—	—	—	29,978	114,596	1,867	116,463
West Indies																		
British Honduras ..	1938	Cwts.	28,765	—	—	10,858	39	39,662	659	40,321	12,320	—	—	4,661	5	16,986	283	17,269
	1939	,,	36,371	—	—	7,406	114	43,891	255	44,146	15,348	—	—	3,041	36	18,425	101	18,526
	1946	,,	—	—	—	—	765	765	—	765	—	—	—	—	205	205	—	205
	1947	,,	—	—	—	—	624	624	—	624	—	—	—	—	131	131	—	131
	1948	,,	—	—	—	—	986	986	—	986	—	—	—	—	178	178	—	178
	1949	,,	61,607	—	—	—	187	61,794	—	61,794	57,260		—	—	28	57,288	—	57,288
Dominica	1938	Crates	24	—	—	3,797	—	3,821	747	4,568	10	—	—	1,576	—	1,586	308	1,894
	1939	,,	—	—	1	3,954	—	3,955	1,417	5,372	—	—	—	1,310	—	1,310	549	1,859
	1946	,,	—	—	—	18	—	18	5,201	5,219	—	—	—	11	—	11	2,708	2,719
	1947	,,	—	—	—	206	—	206	6,561	6,767	—	—	—	150	—	150	4,374	4,524
	1948	,,	—	—	—	536	—	536	6,626	7,162	—	—	—	391	—	391	4,832	5,223
	1949	,,	2,005	—	—	343	8,565	10,913	6,272	17,185	411	—	—	69	4,668	5,148	2,826	7,974
Jamaica	1938	Nos.	12,262,520	530,250	—	849,250	19,900	13,661,920	161,690	13,823,610	34,460	1,065	—	2,295	50	37,870	571	38,441
	1939	,,	15,711,973	780,850	—	712,760	2,000	17,207,583	74,820	17,282,403	48,318	2,329	—	1,998	10	52,655	248	52,903
	1946	,,	2,785,680	243,472	—	—	18,630	3,047,782	—	3,047,782	20,778	2,129	—	—	262	23,169	—	23,169
	1947	Packages	71,675	3,703	—	—	1,584	76,962	1,164	78,126	57,343	3,333	—	—	1,711	62,387	32	62,419
	1948		112,799	21,037	—	—	1,361	135,197	19	135,216	89,793	18,933	—	—	1,152	109,878	13	109,891
	1949	Cases	177,306	14,305	—	—	1,170	192,781	7,833	200,614	141,684	12,875	—	—	1,024	155,583	6,483	162,066
Trinidad & Tobago	1938	Cwts.	49,029	—	—	6,146	913	56,088	453	56,541	61,518	—	—	4,025	452	65,995	306	66,301
	1939	,,	9,271	—	1	5,893	174	15,339	595	15,934	10,563	—	1	3,815	218	14,597	293	14,890
	1946	,,	—	—	—	—	865	865	1,939	2,804	—	—	—	—	1,055	1,055	1,468	2,523
	1947	,,	55,002	—	—	—	594	55,596	1,404	57,000	74,100	—	—	—	729	74,829	1,504	76,333
	1948	,,	145,036	—	—	—	3,011	148,047	1,789	149,836	188,175	—	—	—	3,786	191,961	1,903	193,864
	1949	,,	50,214	—	—	—	790	51,004	3,195	54,199	63,350	—	—	—	1,070	64,420	2,909	67,329
Totals (1)	1938	Cwts.	162,967	3,682	—	25,614	1,090	193,353	2,769	196,122	108,308	1,065	—	12,557	507	122,437	1,468	123,905
	1939	,,	154,753	5,422	2	21,073	302	181,552	2,382	183,934	74,229	2,329	1	10,164	264	86,987	1,191	88,178
	1946	,,	19,345	1,691	—	13	1,759	22,808	5,654	28,462	20,778	2,129	—	11	1,522	24,440	4,176	28,616
	1947	,,	104,279	2,546	—	147	2,307	109,279	6,890	116,169	131,443	3,333	—	150	2,571	137,497	5,910	143,407
	1948	,,	222,585	14,463	—	383	4,933	242,364	6,535	248,899	277,968	18,933	—	391	5,116	302,408	6,748	309,156
	1949	,,	235,151	9,835	—	245	7,899	253,130	13,060	266,190	262,705	12,875	—	69	6,790	282,439	12,218	294,657
Grand Totals (1) ..	1938	Cwts.	168,303	3,682	—	25,614	1,348	198,947	2,783	201,730	111,704	1,065	—	12,557	729	126,055	1,481	127,536
	1939	,,	173,509	5,422	2	21,073	308	200,314	2,382	202,696	83,204	2,329	1	10,164	267	95,965	1,191	97,156
	1946	,,	43,730	1,691	—	13	6,763	52,197	5,930	58,127	58,769	2,129	—	11	10,271	71,180	4,676	75,856
	1947	,,	176,601	2,546	—	147	4,237	183,531	6,986	190,517	251,196	3,333	—	150	5,683	260,362	6,070	266,432
	1948	,,	284,664	15,747	—	383	7,105	307,899	8,058	315,957	372,117	21,033	—	391	8,683	402,224	9,341	411,565
	1949	,,	287,214	9,835	—	245	23,434	320,728	14,082	334,810	347,323	12,875	—	69	36,768	397,035	14,085	411,120

N.B.—Other Exporters (See Introductory Note 5) British Guiana ; Antigua ; Grenada ; St. Lucia ; St. Vincent ; Fiji.

(1) Conversions to weight for Totals have been made at the following rates :

Cyprus	3,500	=	1 ton.
Dominica	1 Crate	=	80 lbs.
Jamaica	2,880	=	1 ton.
,,	1 Package	=	77 lbs.
,,	1 Case	=	77 lbs.

TABLE 3: LIMES

			Quantity								Value (£)							
Colony, etc.	Year	Unit	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa Gold Coast	1938	Cwts.	3,873	—	—	—	—	3,873	—	3,873	983	—	—	—	—	983	—	983
	1939	,,	4,496	—	—	—	—	4,496	—	4,496	1,209	—	—	—	—	1,209	—	1,209
	1946	,,	8,840	—	—	—	21	8,861	—	8,861	12,556	—	—	—	24	12,580	—	12,580
	1947	,,	1,400	—	—	—	10	1,410	—	1,410	2,801	—	—	—	12	2,813	—	2,813
	1948	,,	5,104	—	—	—	12	5,116	—	5,116	5,104	—	—	—	18	5,122	—	5,122
	1949	,,	5,559	—	—	—	7	5,566	—	5,566	5,626	—	—	—	6	5,632	—	5,632
West Indies Dominica	1938	Barrels	—	—	2,328	838	—	3,166	623	3,789	—	—	3,132	1,384	—	4,516	772	5,288
	1939	,,	..	..	..	..	..	..	..	5,895	..	..	..	..	..	..	..	6,813
	1946	,,	—	—	83	1,307	7	1,397	223	1,620	—	—	92	1,400	7	1,499	272	1,771
	1947	,,	—	—	—	1,087	—	1,087	478	1,565	—	—	—	1,488	—	1,488	605	2,093
	1948	,,	1,416	—	—	899	—	2,315	892	3,207	1,416	—	—	628	—	2,044	892	2,936
	1949	,,	—	—	—	2,181	15	2,196	1,145	3,341	—	—	—	2,243	18	2,261	1,364	3,625
Jamaica	1938	Packages	12,353	—	2,582	1,876	—	16,811	78	16,889	3,088	—	2,011	483	—	5,582	27	5,609
	1939		6,554	—	1,317	2,492	—	10,363	26	10,389	2,025	—	1,464	582	—	4,071	10	4,081
	1946	,,	31	—	25	—	—	56	—	56	26	—	15	—	—	41	—	41
	1947	,,	1,211	—	52	—	—	1,263	—	1,263	579	—	20	—	—	599	—	599
	1948	,,	9,284	—	—	—	—	9,284	300	9,584	3,017	—	—	—	—	3,017	195	3,212
	1949	,,	4,054	—	686	—	—	4,740	2	4,742	642	—	202	—		844	3	847
Totals (1)	1938	Cwts.	2,096	—	4,179	1,665	—	7,940	1,014	8,954	3,088	—	5,143	1,867	—	10,098	799	10,897
	1939	,,	..	..	..	..	..	..	..	11,236	..	..	..	..	..	..	..	10,894
	1946	,,	5	—	137	2,101	11	2,254	358	2,612	26	—	107	1,400	7	1,540	272	1,812
	1947	,,	205	—	9	1,747	—	1,961	768	2,729	579	—	20	1,488	—	2,087	605	2,692
	1948	,,	3,851	—	—	1,445	—	5,296	1,484	6,780	4,433	—	—	628	—	5,061	1,087	6,148
	1949	,,	688	—	116	3,505	24	4,333	1,840	6,173	642	—	202	2,243	18	3,105	1,367	4,472
Grand Totals (1)	1938	Cwts.	5,969	—	4,179	1,665	—	11,813	1,014	12.827	4,071	—	5,143	1,867	—	11,081	799	11,880
	1939	,,	..	..	..	..	..	..	..	15,732	..	..	..	..	..	..	..	12,103
	1946	,,	8,845	—	137	2,101	32	11,115	358	11,473	12,582	—	107	1,400	31	14,120	272	14,392
	1947	,,	1,605	—	9	1,747	10	3,371	768	4,139	3,380	—	20	1,488	12	4,900	605	5,505
	1948	,,	8,955	—	—	1,445	12	10,412	1,484	11,896	9,537	—	—	628	18	10,183	1,087	11,270
	1949	,,	6,247	—	116	3,505	31	9,899	1,840	11,739	6,268	—	202	2,243	24	8,737	1,367	10,104

N.B.—Other Exporters (See Introductory Note 5) Nigeria ; Sierra Leone ; Bahamas ; British Guiana ; British Honduras ; Leeward Islands ; Trinidad and Tobago ; Grenada ; St. Lucia ; St. Vincent.

(1) Conversions to weight for Totals have been made at the following rates :—

1 Barrel = 180 lbs. (Dominica).
1 Package = 19 lbs. (Jamaica).

TABLE 4: ORANGES

Colony, etc.	Year	Unit	Quantity								Value (£)							
			U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
Mediterranean																		
Cyprus	1938	Nos.	32,558,970	—	—	—	23,528,149	56,087,119	353,462	56,440,581	50,489	—	—	—	33,427	83,916	492	84,408
	1939	„	16,190,832	—	—	—	5,509,993	21,700,825	113,000	21,813,825	28,526	—	—	—	10,082	38,608	215	38,823
	1946	„	6,831,444	1,544,000	—	—	24,001,508	32,376,952	1,086,658	33,463,610	39,378	9,000	—	—	136,071	184,449	5,975	190,424
	1947	„	27,730,686	—	—	—	12,706,376	40,437,062	747,238	41,184,300	171,507	—	—	—	85,577	257,084	5,064	262,148
	1948	„	33,008,094	9,465,354	—	—	8,403,948	50,877,396	4,548,252	55,425,648	187,100	52,900	—	—	53,542	293,542	35,215	328,757
	1949	„	5,738,019	2,500	—	—	62,712,964	68,453,483	3,064,744	71,518,227	40,160	15	—	—	400,587	440,762	20,534	461,296
West Indies																		
Dominica ..	1938	Crates	38	—	—	5,142	—	5,180	1,352	6,532	19	—	—	2,564	—	2,583	2,757	5,340
		Barrels	—	—	—	—	—	—	1,958	1,958								
	1939	Crates	..	—	..	..	—	..	..	7,349	9	—	63	2,640	—	2,712	4,139	6,851
		Barrels	..	—	..	..	—	..	..	3,130								
	1946	Crates	—	—	—	—	—	—	2,904	2,904	—	—	—	—	—	—	5,036	5,036
		Barrels	—	—	—	—	—	—	3,308	3,308								
	1947	Crates	—	—	—	210	—	210	2,207	2,417	—	—	—	197	11	208	7,743	7,951
		Barrels	—	—	—	—	6	6	3,208	3,214								
	1948	Crates	—	—	—	1,730	3	1,733	5,278	7,011	—	—	—	1,622	12	1,634	10,575	12,209
		Barrels	—	—	—	—	5	5	3,066	3,071								
	1949	Crates	5,558	—	—	195	116	5,869	5,267	11,136	3,120	—	—	101	91	3,312	7,625	10,937
		Barrels	—	—	—	—	13	13	2,538	2,551								
Jamaica	1938	Boxes	232,579	46,580	10	38,800	6	317,975	9,107	327,082	70,129	12,556	5	11,243	5	93,938	3,014	96,952
	1939	„	181,995	96,997	568	32,400	40	312,000	6,084	318,084	60,318	42,000	234	9,471	15	112,038	1,951	113,989
	1946	Packages	74,583	8,042	—	—	201	82,826	13	82,839	61,880	6,836	—	—	429	69,145	17	69,162
	1947	„	69,152	26,229	—	600	4,333	100,314	221	100,535	57,621	26,229	—	510	5,078	89,438	230	89,668
	1948	Boxes	51,785	61,854	—	1,500	3,370	118,509	18	118,527	47,174	61,854	—	1,275	3,225	113,528	22	113,550
	1949	„	146,761	66,997	—	—	3,515	217,273	1,434	218,707	132,143	66,997	—	—	3,650	202,790	1,562	204,352
Trinidad & Tobago	1938	Cwts	394	—	—	1,898	52	2,344	12,986	15,330	491	—	—	1,202	13	1,706	3,899	5,605
	1939	„	64	—	—	163	184	411	5,300	5,711	79	—	—	105	112	296	1,965	2,261
	1946	„	—	—	—	—	1,405	1,405	11,677	13,082	—	—	—	—	1,824	1,824	11,160	12,984
	1947	„	—	—	—	—	912	912	15,204	16,116	—	—	—	—	1,393	1,393	14,857	16,250
	1948	„	13,095	—	—	—	2,111	15,206	28,218	43,424	23,125	—	—	—	3,789	26,914	33,029	59,943
	1949	„	—	—	—	2	1,375	1,377	12,266	13,643	—	—	—	1	2,961	2,962	14,489	17,451
Totals (1)	1938	Cwts	170,705	34,103	7	34,207	56	239,078	23,652	262,730	70,639	12,556	5	15,009	18	98,227	9,670	107,897
	1939	„	..	..	..	..	..	..	..	248,921	60,406	42,000	297	12,216	127	115,046	8,055	123,101
	1946	„	54,605	5,888	—	—	1,552	62,045	18,912	80,957	61,880	6,836	—	—	2,253	70,969	16,213	87,182
	1947	„	50,629	19,203	—	598	4,094	74,524	21,910	96,434	57,621	26,229	—	707	6,482	91,039	22,830	113,869
	1948	„	51,009	45,286	—	2,411	4,588	103,294	36,890	140.184	70,299	61,854	—	2,897	7,026	142,076	43,626	185,702
	1949	„	111,668	49,051	—	150	4,056	164,925	21,165	186,090	135,263	66,997	—	102	6,702	209,064	23,676	232,740
Totals (1)	1938	Cwts	297,840	34,103	7	34,207	91,928	458,085	25,032	483,117	121,128	12,556	5	15,009	33,445	182,143	10,162	192,305
	1939	„	..	..	..	..	..	..	..	334,699	88,932	42,000	297	12,216	10,209	153,654	8,270	161,924
	1946	„	81,425	10,126	—	—	97,604	189,155	23,178	212,333	101,258	15,836	—	—	138,324	255,418	22,188	277,606
	1947	„	159,498	19,203	—	598	53,978	233,277	24,844	258,121	229,128	26,229	—	707	92,059	348,123	27,894	376,017
	1948	„	180,596	82,405	—	2,411	37,623	303,035	54,746	357,781	257,399	114,754	—	2,897	60,568	435,618	78,841	514,459
	1949	„	134,195	49,060	—	150	250,262	433,667	33,197	466,864	175,423	67,012	—	102	407,289	649,826	44,210	694,036

N.B.—Other Exporters (See Introductory Note 5): Malta; British Guiana; British Honduras; Antigua; Grenada; St. Lucia; St. Vincent; Fiji; Tonga.

(1) Conversions to weight for Totals have been made at the following rates:

Cyprus: Ratio of oval to round 1938-1939, 13—1; 1946-49, 17—1: oval 5,000 = 1 ton; round 7,500 = 1 ton.
Dominica: 1 crate = 85 lbs.; 1 barrel = 170 lbs.
Jamaica: 1 box or package = 82 lbs.

TABLE 5: OTHER CITRUS FRUITS

			Quantity							Value (£)						
Colony, etc.	Year	Unit	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
Mediterranean Cyprus (1)	1938	Nos.	12,624,660	—	—	—	471,006	13,095.666	26,530	13,122,196	12,382	—	—	—	426	12,808	27	12,835
	1939	„	14,794,026	—	—	—	401,156	15,195,182	34,345	15.229,527	15,957	—	—	—	371	16,328	32	16,360
	1946	„	4.490,184	—	—	—	4,211,287	8,701,471	266,280	8,967,751	18,107	—	—	—	12,370	30,477	950	31,427
	1947	„	4,620,566	—	—	—	757,074	5,377,640	—	5,377,640	20,331	—	—	—	2,232	22,563	—	22,563
	1948	„	965,070	—	—	—	159,380	1,124,450	45,868	1,170,318	4,094	—	—	—	637	4,731	203	4,934
	1949	„	7,011,912	6,850	—	397,290	1,379,770	8,795,822	188,056	8,983,878	23,688	60	—	1,500	5,015	30,263	742	31,005
West Indies Jamaica	1938	Boxes	480	—	—	384	—	864	640	1,504	170	—	—	97	—	267	231	498
	1939	„	1,252	—	—	—	—	1,252	698	1,950	431	—	—	—	—	431	223	654
	1946	Packages	—	—	—	603	—	603	—	603	—	—	—	410	—	410	—	410
	1947	„	2	—	—	—	—	2	1	3	—	—	—	—	—	—	1	1
	1948	„	9,301	1,005	—	2,620	801	13,727	—	13,727	3,022	1,485	—	1,850	705	7,062	—	7,062
	1949	„	1,360	—	—	910	671	2,941	304	3,245	1,329	—	—	785	752	2,866	354	3,220
Grand Totals ..	1938										12,552	—	—	97	426	13,075	258	13,333
	1939										16,388	—	—	—	371	16,759	255	17,014
	1946										18,107	—	—	410	12,370	30,887	950	31,837
	1947										20,331	—	—	—	2,232	22,563	1	22,564
	1948										7,116	1,485	—	1,850	1,342	11,793	203	11,996
	1949										25,017	60	—	2,285	5,767	33,129	1,096	34,225

N.B.—Other Exporters (See Introductory Note 5): Kenya, Tanganyika and Zanzibar (Citrus fruits); Malta (Mandarines); British Honduras (Lemons and Tangerines); Dominica (Lemons); Grenada (Mandarines); St. Lucia (Lemons, Mandarines and Tangerines); Fiji (other than Grapefruit and Oranges); Tonga (other than Oranges).

(1) Mainly Lemons.

TABLE 6: CITRUS FRUIT JUICES

		Quantity (Gallons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies British Honduras (1) .. Grapefruit Juice	1938	3,408	—	—	3,256	—	6,664	144	6,808	352	—	—	399	—	751	20	771
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1946	—	—	145	291,649	42	291,836	1	291,837	—	—	56	84,144	119	84,319	2	84,321
	1947	424,319	—	—	—	—	424,319	—	424,319	103,450	—	—	—	—	103,450	—	103,450
	1948	346,348	—	—	—	—	346,348	—	346,348	106,569	—	—	—	—	106,569	—	106,569
	1949	236,708	—	—	—	—	236,708	—	236,708	71,680	—	—	—	—	71,680	—	71,680
Dominica .. .. Grapefruit Juice	1938	755	—	—	—	—	755	—	755	66	—	—	—	—	66	—	66
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1946	—	—	—	512	—	512	—	512	—	—	—	87	—	87	—	87
	1947	1,660	—	—	—	—	1,660	10,070	11,730	228	—	—	—	—	228	1,385	1,613
	1948	9,354	—	—	—	16,984	26,338	—	26,338	7,015	—	—	—	9,785	16,800	—	16,800
	1949	33,279	—	—	37	—	33,316	—	33,316	5,290	—	—	6	—	5,296	—	5,296
Jamaica.. .. .. Grapefruit Juice	1938	21,327	—	—	95	—	21,422	—	21,422	1,095	—	—	5	—	1,100	—	1,100
	1939	21,114	—	—	125	—	21,239	75	21,314	1,458	—	—	7	—	1,465	9	1,474
	1946	27,166	3,900	—	280,439	—	311,505	—	311,505(4)	11,922	878	—	55,729	—	68,529	—	68,529 (4)
	1947	98,792	26,400	—	—	2,041	127,233	60	127,293(5)	28,733	9,596	—	—	566	38,895	16	38,911 (5)
	1948	179,941	8,400	75	—	190	188,606	2,397	191,003(6)	45,216	1,120	18	—	37	46,391	493	46,884 (6)
	1949	229,021	1,200	1,211	—	1,764	233,196	2,114	235,310(7)	51,969	320	354	—	311	52,954	512	53,466 (7)
Trinidad and Tobago .. Grapefruit Juice	1938	323	623	—	154,745	87	155,778	1,090	156,868	42	90	—	15,672	10	15,814	143	15,957
	1939	524	1,100	8	147,891	48	149,571	1,255	150,826	54	129	1	12,478	1	12,663	149	12,812
	1946	6,960	—	4,525	350,255	37,111	398,851	52,827	451,678	1,509	—	1,155	66,261	8,263	77,188	11,628	88,816
	1947	400,000	—	—	1,296	48,052	449,348	24,306	473,654	83,333	—	—	236	10,337	93,906	5,686	99,592
	1948	605,209	225	—	—	2,280	607,714	40,269	647,983	145,585	53	—	—	690	146,328	9,387	155,715
	1949	322,502	75	3	126,600	1,791	450,971	37,934	488,905	77,939	18	1	33,028	591	111,577	6,465	118,042
Total .. .. .. Grapefruit Juice	1938	25,813	623	—	158,096	87	184,619	1,234	185,853	1,555	90	—	16,076	10	17,731	163	17,894
	1939	21,638	1,100	8	148,016	48	170,810	1,330	172,140	1,512	129	1	12,485	1	14,128	158	14,286
	1946	34,126	3,900	4,670	922,855	37,153	1,002,704	52,828	1,055,532	13,431	878	1,211	206,221	8,382	230,123	11,630	241,753
	1947	924,771	26,400	—	1,296	50,093	1,002,560	34,436	1,036,996	215,744	9,596	—	236	10,903	236,479	7,087	243,566
	1948	1,140,852	8,625	75	—	19,454	1,169,006	42,666	1,211,672	304,385	1,173	18	—	10,512	316,088	9,880	325,968
	1949	821,510	1,275	1,214	126,637	3,555	954,191	40,048	994,239	206,878	338	355	33,034	902	241,507	6,977	248,484
West Africa Gold Coast .. .. Lime Juice	1938	541,109	45	—	—	—	541,154	—	541,154	27,074	4	—	—	—	27,078	—	27,078
	1939	541,481	220	—	—	—	541,701	—	541,701	38,291	28	—	—	—	38,319	—	38,319
	1946	391,535	26,642	—	—	—	418,177	—	418,177	42,937	3,404	—	—	—	46,341	—	46,341
	1947	320,165	15,108	—	—	—	335,273	—	335,273	31,857	1,896	—	—	—	33,753	—	33,753
	1948	270,263	504	—	—	—	270,767	—	270,767	27,043	96	—	—	—	27,139	—	27,139
	1949	121,874	—	—	—	—	121,874	—	121,874	12,222	—	—	—	—	12,222	—	12,222
West Indies Dominica .. .. Lime Juice	1938(3)	85,380	22,378	16,478	41,112	120	165,468	19,910	185,378	4,255	922	714	1,863	5	7,759	857	8,616
	1939(3)	113,111	—	22,917	14,943	—	150,971	33,327	184,298	5,306	—	978	623	—	6,907	1,406	8,313
	1946	—	—	38,969	91,907	—	130,876	152,419	283,295	—	—	3,201	6,472	—	9,673	11,363	21,036
	1947	106,365	—	9,560	57,476	7,006	180,407	167,133	347,540	12,629	—	914	6,480	671	20,694	16,299	36,993
	1948	466,811	—	12,440	11,679	11,518	502,448	87,224	589,672	61,785	—	1,429	1,301	1,264	65,779	10,425	76,204
	1949	264,890	—	16,024	20,402	—	301,316	84,700	386,016	35,953	—	1,772	2,191	—	39,916	9,208	49,124

TABLE 6: CITRUS FRUIT JUICES—(*continued*)

		Quantity (Gallons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies—(*continued*)																	
Trinidad and Tobago . . Lime Juice	1938	48,494	20,619	50	8,192	37	77,392	—	77,392	3,633	911	4	364	9	4,921	—	4,921
	1939	27,669	24,657	2,019	7,210	12	61,567	—	61,567	2,360	944	126	459	6	3,895	—	3,895
	1946	—	58,536	2,000	22,664	2,328	85,528	5,951	91,479	—	8,367	300	4,566	856	14,089	1,702	15,791
	1947	12,006	47,551	6,722	630	401	67,310	735	68,045	1,716	7,173	856	95	350	10,190	205	10,395
	1948	45,343	18,637	850	2,205	1,355	68,390	29,374	97,764	5,930	2,578	89	354	623	9,574	4,180	13,754
	1949	5,000	10,580	—	6,562	1,915	24,057	53,220	77,277	772	1,489	—	945	735	3,941	7,291	11,232
Total Lime Juice . .	1938	674,983	43,042	16,528	49,304	157	784,014	19,910	803,924	34,962	1,837	718	2,227	14	39,758	857	40,615
	1939	682,261	24,877	24,936	22,153	12	754,239	33,327	787,566	45,957	972	1,104	1,082	6	49,121	1,406	50,527
	1946	391,535	85,178	40,969	114,571	2,328	634,581	158,370	792,951	42,937	11,771	3,501	11,038	856	70,103	13,065	83,168
	1947	438,536	62,659	16,282	58,106	7,407	582,990	167,868	750,858	46,202	9,069	1,770	6,575	1,021	64,637	16,504	81,141
	1948	782,417	19,141	13,290	13,884	12,873	841,605	116,598	958,203	94,758	2,674	1,518	1,655	1,887	102,492	14,605	117,097
	1949	391,764	10,580	16,024	26,964	1,915	447,247	137,920	585,167	48,947	1,489	1,772	3,136	735	56,079	16,499	72,578
Mediterranean																	
Cyprus (2) . . . . Orange Juice	1949	28,892	—	—	—	—	28,892	—	28,892	5,824	—	—	—	—	5,824	—	5,824
West Indies																	
Jamaica . . . . . . Orange Juice	1938	27,186	—	—	539	—	27,725	—	27,725	1,365	—	—	26	—	1,391	—	1,391
	1939	27,330	—	—	1,673	216	29,219	172	29,391	1,614	—	—	101	11	1,726	8	1,734
	1946	41,230	2,400	—	229,724	—	273,354	—	273,354(8)	28,145	580	—	45,952	—	74,677	—	74,677(8)
	1947	15,029	42,900	—	11,335	5,604	74,868	—	74,868(9)	12,128	10,725	—	1,946	2,063	26,862	—	26,862(9)
	1948	546,870	—	75	43	120	547,108	9,160	556,268(10)	139,826	—	19	49	60	139,954	1,839	141,793(10)
	1949	414,344	7,046	390	62,676	2,395	486,851	9,936	496,787(11)	194,820	714	106	11,041	853	207,534	3,401	210,935(11)

N.B.—Other Exporters (See Introductory Note5) :		
	Grapefruit Juice :	Fiji.
	Lime Juice :	Nigeria ; British Guiana ; Jamaica ; Montserrat ; Grenada ; St. Lucia.
	Orange Juice :	British Honduras ; Trinidad and Tobago ; Tonga.

There were also some small exports of Lemon Juice from Jamaica, Cyprus and Tonga.

(1) Converted from weight to liquid measure at the rate of 14 lbs.=1 gallon.

(2) Not separately enumerated in earlier years.

(3) In these years Dominica was included in the Leeward Islands and no destination breakdown by island is available. These figures, therefore, include those for the rest of the Presidencies, the exports of which were : (1938 : Quantity 59,660 galls. Value £2,430. 1939 : Quantity 66,772 galls. Value £2,778).

(4) Of which 24,794 gallons (valued at £12,059) is " Concentrated " and 286,711 gallons (valued at £56,470) is " Tinned or Canned."

(5) Of which 99,932 gallons (valued at £29,030) is " In bulk " and 27,361 gallons (valued at £9,881) is " In cases."

(6) Of which 36,122 gallons (valued at £14,703) is " In bulk " and 154,881 gallons (valued at £32,181) is " In cases."

(7) Of which 78,587 gallons (valued at £15,100) is " In bulk " and 156,723 gallons (valued at £38,366) is " In cases."

(8) Of which 237,027 gallons (valued at £66,405) is " Canned " and 36,327 gallons (valued at £8,272) is " Concentrated."

(9) Of which 46,494 gallons (valued at £12,095) is " Canned " and 28,374 gallons (valued at £14,767) is " In bulk."

(10) Of which 453,559 gallons (valued at £117,044) is " Canned " and 102,709 gallons (valued at £24,749) is " In bulk."

(11) Of which 238,540 gallons (valued at £107,879) is " Canned " and 258,247 gallons (valued at £103,056) is " In bulk."

A. FOODSTUFFS AND TOBACCO

TABLE 7: CITRUS PULP

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies																	
Jamaica (1) —	1946	6,516	—	—	444	100	7,060	—	7,060	130,315	—	—	8,310	2,000	140,625	—	1 40,625
	1947	3,020	21	—	785	—	3,826	—	3,826	75,851	475	—	16,895	—	93,221	—	93,221
	1948	8,380	—	—	538	—	8,918	—	8,918	195,269	—	—	14,045	—	209,314	—	2 09,314
	1949	3,002	—	—	133	—	3,135	—	3,135	70,732	—	—	3,523	—	74,255	—	74,255

(1) Not separately enumerated in 1938 and 1939.

TABLE 8: ARROWROOT

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A. etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A. etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies																	
St. Vincent	1938	694	—	2,477	273	133	3,577	74	3,651	16,096	—	62,209	7,094	3,970	89,369	2,269	91,638
	1939	1,077	—	3,716	243	129	5,165	86	5,251	24,952	—	94,054	6,233	3,750	128,989	2,776	131,765
	1946	573	—	2,121	29	1	2,724	99	2,823	13,380	—	59,391	674	12	73,487	2,315	75,772
	1947	627	—	2,223	34	—	2,884	92	2,976	17,919	—	65,334	803	—	84,056	2,175	86,231
	1948	785	—	1,924	43	—	2,752	87	2,839	42,494	—	113,492	2,840	—	158,826	4,949	163,775
	1949	677	—	2,584	39	2	3,302	82	3,384	40,306	—	139,047	2,576	62	181,991	5,155	187,146

N.B.—Small exports from Tanganyika have been excluded (See Introductory Note 5).

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A. etc., and the Philippines	Canada and New foundland	Other Countries	Total Excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa Gold Coast (1)	1938	101,412	9,733	49,481	653	101,950	263,229	—	263,229	1,771,087	185,248	822,185	10,553	1,751,826	4,540,899	—	4,540,899
	1939	114,233	12,431	84,022	2,579	67,444	280,709	—	280,709	2,100,513	242,031	1,527,236	45,377	1,186,062	5,101,219	—	5,101,219
	1946	62,696	14,947	89,678	15,250	53,745	236,316	—	236,316	2,517,207	551,099	3,780,335	689,414	1,950,261	9,488,316	—	9,488,316
	1947	51,033	13,523	75,236	5,085	35,344	180,221	17	180,238	3,991,468	859,144	8,867,852	524,382	2,390,293	16,633,139	994	16,634,133
	1948	50,031	13,943	72,550	8,905	63,430	208,859	5,440	214,299	10,239,598	2,985,570	14,331,829	1,802,503	12,345,763	41,705,263	460,643	42,165,906
	1949	77,326	16,353	72,482	8,465	88,026	262,652	950	263,602	8,900,467	2,312,987	9,852,806	1,113,721	11,707,334	33,887,315	131,556	34,018,871
Nigeria (1)	1938	35,109	100	26,478	25	35,388	97,100	—	97,100	578,434	1,534	406,258	331	580,127	1,566,684	—	1,566,684
	1939	29,781	111	47,847	—	36,102	113,841	—	113,841	469,070	1,970	754,893	—	549,661	1,775,594	—	1,775,594
	1946	36,524	550	47,617	10,474	5,021	100,186	—	100,186	1,371,715	23,089	1,768,774	407,903	207,022	3,778,503	4	3,778,507
	1947	41,791	1,130	52,195	3,837	11,840	110,793	—	110,793	4,112,766	152,594	4,661,189	450,745	1,272,837	10,650,131	—	10,650,131
	1948	47,935	250	30,942	4,796	7,526	91,449	—	91,449	8,685,360	56,750	6,559,704	978,384	1,598,538	17,878,736	—	17,878,736
	1949	44,896	—	45,149	825	12,768	103,638	—	103,638	6,150,752	—	6,230,562	135,300	2,180,613	14,697,227	1	14,697,228
Sierra Leone (1)	1938	117	—	—	—	267	384	—	384	1,776	—	—	—	4,073	5,849	—	5,849
	1939	352	—	—	—	215	567	—	567	5,569	—	—	—	3,213	8,782	—	8,782
	1946	572	—	—	—	—	572	—	572	11,653	—	—	—	—	11,653	—	11,653
	1947	439	—	—	—	—	439	—	439	16,930	—	—	—	—	16,930	—	16,930
	1948	1,379	—	—	—	—	1,379	—	1,379	102,941	—	—	—	—	102,941	—	102,941
	1949	714	—	—	—	—	714	—	714	65,627	—	—	—	—	65,627	—	65,627
Totals	1938	136,638	9,833	75,959	678	137,605	360,713	—	360,713	2,351,297	186,782	1,228,443	10,884	2,336,026	6,113,432	—	6,113,432
	1939	144,366	12,542	131,869	2,579	103,761	395,117	—	395,117	2,575,152	244,001	2,282,129	45,377	1,738,936	6,885,595	—	6,885,595
	1946	99,792	15,497	137,295	25,724	58,766	337,074	—	337,074	3,900,575	574,188	5,549,109	1,097,317	2,157,283	13,278,472	4	13,278,476
	1947	93,263	14,653	127,431	8,922	47,184	291,453	17	291,470	8,121,164	1,011,738	13,529,041	975,127	3,663,130	27,300,200	994	27,301,194
	1948	99,345	14,193	103,492	13,701	70,956	301,687	5,440	307,127	19,027,899	3,042,320	20,891,533	2,780,887	13,944,301	59,686,940	460,643	60,147,583
	1949	122,936	16,353	117,631	9,290	100,794	367,004	950	367,954	15,116,846	2,312,987	16,083,368	1,249,021	13,887,947	48,650,169	131,557	48,781,726
West Indies Dominica	1938	26	—	—	95	—	121	6	127	494	—	—	1,892	—	2,386	98	2,484
	1939	—	—	—	30	—	30	14	44	—	—	—	480	—	480	352	832
	1946	—	—	70	—	—	70	19	89	—	—	2,947	—	—	2,947	928	3,875
	1947	—	—	201	—	—	201	9	210	—	—	31,788	—	1	31,789	1,220	33,009
	1948	—	—	180	—	—	180	8	188	—	—	32,048	—	—	32,048	1,341	33,389
	1949	—	—	97	—	41	138	9	147	—	—	8,617	—	8,522	17,139	902	18,041
Grenada	1938	2,083	33	94	1,499	557	4.266	3	4,269	65,419	1,119	2,342	42,733	15,233	126,846	74	126,920
	1939	1,226	40	984	964	377	3,591	1	3,592	43,494	1,543	26,636	24,376	10,805	106,854	23	106,877
	1946	1,066	150	1,325	—	50	2,591	—	2,591	84,541	10,397	107,821	—	3,734	206,493	—	206,493
	1947	862	90	1,258	—	100	2,310	2	2,312	111,908	16,662	191,149	—	18,613	338,332	251	338,583
	1948	1,048	44	1,067	84	382	2,625	—	2,625	215,608	10,406	203,632	14,834	82,555	527.035	—	527,035
	1949	986	60	1,013	—	363	2,422	2	2,424	157,502	9,324	142,985	—	54,265	364,076	271	364,347
Jamaica	1938	44	5	—	2,169	140	2,358	—	2,358	790	94	—	42,945	3,191	47,020	—	47,020
	1939	—	5	—	2,301	9	2,315	—	2,315	—	93	—	48,168	186	48,447	—	48,447
	1946	—	—	—	1,425	—	1,425	—	1,425	—	—	—	69,918	—	69,918	1	69,919
	1947	—	—	45	1,551	—	1,596	—	1,596	—	—	9,831	133,215	—	143,046	65	143,111
	1948	—	—	—	1,884	—	1,884	—	1,884	—	—	—	351,350	16	351,366	—	351,366
	1949	—	—	—	1,837	—	1,837	2	1,839	—	—	—	203,569	—	203,569	310	203,879
St. Lucia	1938	140	—	—	158	—	298	12	310	4,289	—	—	3,839	—	8,128	204	8,332
	1939	37	—	—	104	—	141	19	160	1,277	—	—	2,423	—	3,700	267	3,967
	1946	..	..	..	..	..	..	..	139	..	..	..	..	..	..	..	7,734
	1947	..	..	..	..	..	..	..	416	..	..	..	..	..	..	..	66,373
	1948	..	..	..	..	..	..	..	255	..	..	..	..	..	..	..	44,673
	1949	—	—	281	—	—	281	—	281	—	—	38,174	—	—	38,174	13	38,187

TABLE 9 : COCOA (RAW)—(*continued*)

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total Excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies—(*continued*)																	
Trinidad and Tobago . .	1938	1,573	480	8,319	2,716	5,855	18,943	2	18,945	45,072	14,067	210,309	69,062	155,027	493,537	64	493,601
	1939	898	74	3,624	891	1,989	7,476	3	7,479	31,362	2,468	123,908	30,328	64,470	252,536	106	252,642
	1946	962	212	1,327	—	448	2,949	9	2,958	70,907	22,232	104,452	—	45,884	243,475	646	244,121
	1947	924	137	2,529	—	432	4,022	—	4,022	128,419	26,038	442,634	—	70,628	667,719	—	667,719
	1948	2,091	205	3,942	898	1,027	8,163	—	8,163	449,763	45,986	820,409	176,648	247,467	1,740,273	—	1,740,273
	1949	1,788	183	2,947	68	742	5,728	—	5,728	312,752	35,942	464,994	11,869	115,982	941,539	—	941,539
Totals . . . . (Excluding St. Lucia)	1938	3,726	518	8,413	6,479	6,552	25,688	11	25,699	111,775	15,280	212,651	156,632	173,451	669,789	236	670,025
	1939	2,124	119	4,608	4,186	2,375	13,412	18	13,430	74,856	4,104	150,544	103,352	75,461	408,317	481	408,798
	1946	2,028	362	2,722	1,425	498	7,035	28	7,063	155,448	32,629	215,220	69,918	49,618	522,833	1,575	524,408
	1947	1,786	227	4,033	1,551	532	8,129	11	8,140	240,327	42,700	675,402	133,215	89,242	1,180,886	1,536	1,182,422
	1948	3,139	249	5,189	2,866	1,409	12,852	8	12,860	665,371	56,392	1,056,089	542,832	330,038	2,650,722	1,341	2,652,063
	1949	2,774	243	4,057	1,905	1,146	10,125	13	10,138	470,254	45,266	616,596	215,438	178,769	1,526,323	1,483	1,527,806
Western Pacific																	
New Hebrides	1938	—	—	—	—	1,863	1,863	—	1,863	—	—	—	—	28,332	28,332	—	28,332
	1939	—	—	—	—	1,904	1,904	—	1,904	—	—	—	—	22,682	22,682	—	22,682
	1946	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
	1947	. .	. .	. .	. .	. .	. .	. .	886	. .	. .	. .	. .	. .	. .	. .	80,332
	1948	—	323	139	—	82	544	—	544	—	54,256	22,732	—	14,123	91,111	—	91,111
	1949	—	. .	—	—	. .	844	—	844	—	32,800	—	—	56,549	89,349	—	89,349
Grand Totals . . (Excluding St. Lucia and New Hebrides)	1938	14C,364	10,351	84,372	7,157	144,157	386,401	11	386,412	2,463,072	202,062	1,441,094	167,516	2,509,477	6,783,221	236	6,783,457
	1939	146,490	12,661	136,477	6,765	106,136	408,529	18	408,547	2,650,008	248,105	2,432,673	148,729	1,814,397	7,293,912	481	7,294,393
	1946	101,820	15,859	140,017	27,149	59,264	344,109	28	344,137	4,056,023	606,817	5,764,329	1,167,235	2,206,901	13,801,305	1,579	13,802,884
	1947	95,049	14,880	131,464	10,473	47,716	299,582	28	299,610	8,361,491	1,054,438	14,204,443	1,108,342	3,752,372	28,481,086	2,530	28,483,616
	1948	102,484	14,442	108,681	16,657	72,365	314,539	5,448	319,987	19,693,270	3,098,712	21,947,622	3,323,719	14,274,339	62,337,662	461,984	62,799,646
	1949	125,710	16,596	121,688	11,195	101,940	377,129	963	378,092	15,587,100	2,358,253	16,699,964	1,464,459	14,066,716	50,176,492	133,040	50,309,532

N.B.—Other Exporters (See Introductory Note 5). Tanganyika ; British Honduras ; Leeward Islands (which included Dominica 1938-39) ; St. Vincent.

(1) During the war and post-war years, the value of cocoa (and certain other centrally-marketed products) tended to be understated, the " f.o.b. selling price " not being employed.

Nigeria

It is estimated for Nigeria that the total value of cocoa exports should for this reason be increased by some £1·7 and £6·5 million for 1946 and 1947 respectively. For 1948 and 1949 the figures above include official adjustments.

Gold Coast

From October 1947 official adjustments have been made and are included in the above figures. It is estimated that the total value of cocoa exports should be increased by some £2·3 and £8 million in 1946 and 1947 respectively.

Sierra Leone

It is estimated that the value of cocoa exports should be increased by about £123,000 and £38,000 in 1948 and 1949 respectively.

TABLE 10: COFFEE (RAW)

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa (1)																	
Kenya	1938	135,204	18,809	57,161	86,415	26,352	323,941	17,908	341,849	325,890	39,127	119,998	194,158	57,378	736,551	31,234	767,785
	1939	151,315	26,706	39,669	73,859	26,478	318,027	20,098	338,125	385,537	67,505	90,300	172,247	146,833	862,422	38,011	900,433
	1946	102,505	46,744	—	—	19,431	168,680	23,143	191,823	583,565	805,885	—	—	35,635	1,425,085	61,535	1,486,620
	1947	112,571	54,867	—	11,656	29,433	208,527	3,549	212,076	782,276	339,696	—	98,726	70,168	1,290,866	7,172	1,298,038
	1948	109,027	67,079	13,797	30,207	61,353	281,463	4,411	285,874	673,210	509,001	98,043	244,959	455,131	1,980,344	20,456	2,000,800
	1949	91,222	19,644	848	2,026	38,258	151,998	4,302	156,300	597,525	183,695	15,266	21,187	677,882	1,495,555	14,281	1,509,836
Uganda	1938	5,406	83,768	62,142	24,983	92,730	269,029	11,188	280,217	9,610	87,417	63,511	40,925	110,105	311,568	16,096	327,664
	1939	20,080	104,889	45,368	29,163	121,063	320,563	22,891	343,454	48,383	112,669	46,381	48,472	47,227	303,132	34,970	338,102
	1946	123,797	292,428	—	—	110,344	526,569	101,724	628,293	430,678	259,109	—	—	292,962	982,749	268,532	1,251,281
	1947	124,431	170,562	100	13,035	77,742	385,870	34,752	420,622	569,782	548,564	440	74,718	237,667	1,431,171	118,352	1,549,523
	1948	210,701	235,873	996	14,452	136,259	598,281	157,806	756,087	839,198	1,017,891	4,219	67,546	648,959	2,577,813	668,851	3,246,664
	1949	97,386	123,909	7,521	8,526	94,986	332,328	145,636	477,964	408,188	761,314	65,763	69,102	754,971	2,059,338	831,563	2,890,901
Tanganyika	1938	6,860	1,000	—	80	28,180	36,120	238,440	274,560	13,134	2,032	2	184	60,089	75,441	309,986	385,427
	1939	7,360	140	—	—	10,580	18,080	313,880	331,960	14,040	286	—	—	25,044	39,370	426,573	465,943
	1946	1,100	3,320	—	—	40	4,460	195,940	200,400	3,433	14,419	—	—	117	17,969	657,519	675,488
	1947	—	2,560	—	—	—	2,560	274,620	277,180	—	12,039	—	—	—	12,039	964,626	976,665
	1948	—	4,454	—	—	28	4,482	220,687	225,169	—	23,409	—	—	106	23,515	873,894	897,409
	1949	172,516	18,971	3,156	6,783	31,573	232,999	7,810	240,809	814,996	151,517	30,159	71,422	342,354	1,410,448	50,320	1,460,768
Totals	1938	147,470	103,577	119,303	111,478	147,262	629,090	267,536	896,626	348,634	128,576	183,511	235,267	227,572	1,123,560	357,316	1,480,876
	1939	178,755	131,735	85,037	103,022	158,121	656,670	356,869	1,013,539	447,960	180,460	136,681	220,719	219,104	1,204,924	499,554	1,704,478
	1946	227,402	342,492	—	—	129,815	699,709	320,807	1,020,516	1,017,676	1,079,413	—	—	328,714	2,425,803	987,586	3,413,389
	1947	237,002	227,989	100	24,691	107,175	596,957	312,921	909,878	1,352,058	900,299	440	173,444	307,835	2,734,076	1,090,150	3,824,226
	1948	319,728	307,406	14,793	44,659	197,640	884,226	382,904	1,267,130	1,512,408	1,550,301	102,262	312,505	1,104,196	4,581,672	1,563,201	6,144,873
	1949	361,124	162,524	11,525	17,335	164,817	717,325	157,748	875,073	1,820,709	1,096,526	111,188	161,711	1,775,207	4,965,341	896,164	5,861,505
West Africa																	
Gold Coast	1938	2	—	—	—	428	430	1	431	1	—	—	—	755	756	4	760
	1939	396	—	—	—	472	868	—	868	773	—	—	—	661	1,434	—	1,434
	1946	13,552	—	—	—	10	13,562	60	13,622	33,599	—	—	—	35	33,634	180	33,814
	1947	13,952	—	—	—	14	13,966	161	14,127	37,991	—	—	—	64	38,055	484	38,539
	1948	10,385	—	—	—	2	10,387	100	10,487	31,936	—	—	—	5	31,941	357	32,298
	1949	2,961	—	—	—	1,113	4,074	100	4,174	9,476	—	—	—	3,128	12,604	211	12,815
Sierra Leone (2)	1938	41	—	—	—	700	741	15	756	42	—	—	—	720	762	31	793
	1939	484	—	—	—	353	837	32	869	375	—	—	—	326	701	48	749
	1946	2,527	—	—	—	229	2,756	14	2,770	6,599	—	—	—	810	7,409	46	7,455
	1947	5,047	—	—	—	466	5,513	22	5,535	13,551	—	—	—	1,499	15,050	87	15,137
	1948	5,836	—	—	—	1,116	6,952	19	6,971	15,356	—	—	—	3,825	19,181	78	19,259
	1949	3,477	—	—	—	1,539	5,016	114	5,130	9,978	—	—	—	6,823	16,801	364	17,165
Totals	1938	43	—	—	—	1,128	1,171	16	1,187	43	—	—	—	1,475	1,518	35	1,553
	1939	880	—	—	—	825	1,705	32	1,737	1,148	—	—	—	987	2,135	48	2,183
	1946	16,079	—	—	—	239	16,318	74	16,392	40,198	—	—	—	845	41,043	226	41,269
	1947	18,999	—	—	—	480	19,479	183	19,662	51,542	—	—	—	1,563	53,105	571	53,676
	1948	16,221	—	—	—	1,118	17,339	119	17,458	47,292	—	—	—	3,830	51,122	435	51,557
	1949	6,438	—	—	—	2,652	9,090	214	9,304	19,454	—	—	—	9,951	29,405	575	29,980
West Indies																	
Jamaica	1938	2,495	228	148	81,034	103	84,008	478	84,486	7,609	671	297	123,213	256	132,046	861	132,907
	1939	2,192	378	5	71,589	13	74,177	388	74,565	6,733	894	34	137,649	38	145,348	699	146,047
	1946	17,773	—	—	—	121	17,894	2,002	19,896	98,658	—	—	—	686	99,344	7,018	106,362
	1947	25,029	—	—	—	233	25,262	2,076	27,338	129,776	—	1	—	1,286	131,063	7,250	138,313
	1948	23,494	—	—	—	203	23,697	1,500	25,197	121,443	—	—	—	1,238	122,681	6,230	128,911
	1949	19,866	—	—	—	139	20,005	1,457	21,462	123,291	—	2	—	1,192	124,485	6,630	131,115

TABLE 10: COFFEE (RAW)—(*continued*)

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies—(*continued*)																	
Trinidad and Tobago ..	1938	231	—	—	3,905	297	4,433	1,708	6,141	251	—	—	5,579	446	6,276	2,162	8,438
	1939	529	—	—	2,867	194	3,590	2,985	6,575	752	—	—	3,655	399	4,806	3,924	8,730
	1946	1	—	6,651	—	44	6,696	4,795	11,491	4	—	24,337	—	260	24,601	17,932	42,533
	1947	9,015	—	700	725	37	10,477	824	11,301	40,044	—	3,234	4,647	214	48,139	3,947	52,086
	1948	—	—	—	—	7	7	6	13	—	—	—	—	47	47	63	110
	1949	—	1,000	—	4,225	11,096	16,321	4,615	20,936	—	6,100	—	24,470	52,605	83,175	24,406	107,581
Totals	1938	2,726	228	148	84,939	400	88,441	2,186	90,627	7,860	671	297	128,792	702	138,322	3,023	141,345
	1939	2,721	378	5	74,456	207	77,767	3,373	81,140	7,485	894	34	141,304	437	150,154	4,623	154,777
	1946	17,774	—	6,651	—	165	24,590	6,797	31,387	98,662	—	24,337	—	946	123,945	24,950	148,895
	1947	34,044	—	700	725	270	35,739	2,900	38,639	169,820	—	3,235	4,647	1,500	179,202	11,197	190,399
	1948	23,494	—	—	—	210	23,704	1,506	25,210	121,443	—	—	—	1,285	122,728	6,293	129,021
	1949	19,866	1,000	—	4,225	11,235	36,326	6,072	42,398	123,291	6,100	2	24,470	53,797	207,660	31,036	238,696
Western Pacific																	
New Hebrides	1938	—	—	—	—	12,320	12,320	—	12,320	—	—	—	—	12,876	12,876	—	12,876
	1939	—	—	—	—	11,620	11,620	—	11,620	—	—	—	—	16,800	16,800	—	16,800
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	6,968	..	..	..	..	..	..	..	35,002
	1948	—	240	—	—	520	760	—	760	—	1,159	—	—	2,511	3,670	—	3,670
	1949	—	—	—	—	3,898	3,898	—	3,898	—	—	—	—	20,789	20,789	—	20,789
Grand Totals .. .. (Excluding New Hebrides)	1938	150,239	103,805	119,451	196,417	148,790	718,702	269,738	988,440	356,537	129,247	183,808	364,059	229,749	1,263,400	360,374	1,623,774
	1939	182,356	132,113	85,042	177,478	159,153	736,142	360,274	1,096,416	456,593	181,354	136,715	362,023	220,528	1,357,213	504,225	1,861,438
	1946	261,255	342,492	6,651	—	130,219	740,617	327,678	1,068,295	1,156,536	1,079,413	24,337	—	330,505	2,590,791	1,012,762	3,603,553
	1947	290,045	227,989	800	25,416	107,925	652,175	316,004	968,179	1,573,420	900,299	3,675	178,091	310,898	2,966,383	1,101,918	4,068,301
	1948	359,443	307,406	14,793	44,659	198,968	925,269	384,529	1,309,798	1,681,143	1,550,301	102,262	312,505	1,109,311	4,755,522	1,569,929	6,325,451
	1949	387,428	163,524	11,525	21,560	178,704	762,741	164,034	926,775	1,963,454	1,102,626	111,190	186,181	1,838,955	5,202,406	927,775	6,130,181

N.B.—Other Exporters (See Introductory Note 5): Nigeria; Northern Rhodesia; Nyasaland Protectorate; British Guiana; Dominica; Grenada.

(1) The figures for East and Central Africa include (in addition to "Hulled") "Cherry", "Parchment" and "Triage" which, in total, amounted to :—

000 Cwts.

Type	1938	1939	1946	1947	1948	1949
Cherry	3	15	43	35	17	19
Parchment ..	43	64	33	17	—	—
Triage	—	—	17	6	17	17

Tanganyika's inter-colonial trade consisted almost entirely of exports to Kenya and Uganda. Kenya and Uganda imported practically no other coffee [25 cwts. (1938), 75 cwts. (1939), nil (1946), 359 cwts. (1947), and 152 cwts. (1948)], so that the re-exports of Kenya and Uganda were made up almost entirely of imports from Tanganyika. These re-exports were sent to the following destinations :

Kenya and Uganda : Re-exports of Coffee

Year	*U.K.*		*Other parts of Sterling Area*		*U.S.A., etc. and the Philippines*		*Canada and Newfoundland*		*Other Countries*		*Total Re-exports excluding Inter-Colonial Trade*		*Inter-Colonial Trade*		*Total Re-exports*	
	000 cwts.	£000	000 cwts.	£000	000 cwts.	£000	000 cwts.	£000	000 cwts.	£000	000 cwts.	£000	000 cwts.	£	000 cwts.	£000
1938	16	28	22	26	99	134	40	71	54	86	232	344	22	34	254	379
1939	46	90	23	29	104	144	43	72	43	73	258	407	41	70	299	478
1946	87	384	71	242	—	—	—	—	27	96	185	722	14	42	199	764
1947	45	213	129	462	—	—	3	16	43	141	219	833	9	27	228	859
1948	179	871	42	204	1	6	—	3	24	116	249	1,199	3	13	249	1,212

Thus the relevant destinations shown in the main table should logically be increased approximately by the figures shown above as being re-exports of Kenya and Uganda.

(2) It is estimated that the total value of Sierra Leone's coffee exports should be increased by about £1,000 and £500 in 1948 and 1949 respectively. (See first paragraph of footnote (1) Table 9.)

Colony, etc.	Year	Quantity (Gallons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Indies																	
Leeward Islands	1938	723,380	—	36,372	890,638	1,034	1,651,424	270	1,651,694	6,044	—	2,367	11,819	6	20,236	2	20,238
	1939	—	—	31,548	1,223,759	1,546	1,256,853	—	1,256,853	—	—	1,633	12,346	12	13,991	—	13,991
	1946	..	..	..	..	..	..	..	1,158,462	..	..	..	..	..	..	..	23,567
	1947	..	..	..	..	..	..	..	937,173	..	..	..	..	..	..	..	21,170
	1948	..	..	..	..	..	..	..	1,581,845	..	..	..	..	..	..	..	38,568
	1949(2)	279,740	..	..	787,348	..	..	..	1,067,807	6,802	..	..	8,202	..	..	..	15,023
Barbados	1938	1,589,259	—	1,257,998	5,714,889	2,528	8,564,674	4,637	8,569,311	43,704	—	83,600	378,214	168	505,686	308	505,994
	1939	1,564,474	—	1,297,464	7,791,369	1,838	10,655,145	6,067	10,661,212	43,023	—	68,376	463,493	118	575,010	348	575,358
	1946	282,240	—	679,241	5,754,967	—	6,716,448	151,432	6,867,880	4,116	—	80,796	695,390	—	780,302	4,866	785,168
	1947	—	—	650,422	7,213,984	—	7,864,406	23,034	7,887,440	—	—	94,853	1,050,777	—	1,145.630	1,649	1,147,279
	1948	—	—	89,037	6,457,267	—	6,546,304	14,326	6,560,630	—	—	14,283	1,035,853	—	1,050,136	2,034	1,052,170
	1949	1,776,269	17	261,049	4,102,837	—	6,140,172	3,756	6,143,928	40,538	3	38,613	602,648	—	681,802	555	682,357
British Guiana	1938	1,746,605	—	4,778	3,920,417	47,204	5,719,004	173,000	5,892,004	18,194	—	70	41,331	1,539	61,134	1,802	62,936
	1939	1,049,979	—	1,964,829	1,985,014	48,230	5,048,052	312,218	5,360,270	10,937	—	20,666	21,748	1,588	54,939	3,252	58,191
	1946	1,887,397	—	—	—	—	1,887,397	6,717	1,894,114	40,567	—	—	—	—	40,567	723	41,290
	1947	3,841,433	—	—	—	—	3,841,433	—	3,841,433	104,989	—	—	—	—	104,989	—	104,989
	1948	1,734,127	—	—	—	—	1,734,127	—	1,734,127	52,498	—	—	—	—	52,498	—	52,498
	1949	2,269,155	—	—	1,832,734	—	4,101,889	—	4,101,889	67,244	—	—	23,346	—	90,590	—	90,590
Jamaica (1)	1947(3)	2	—	1	—	—	3	56	59	2	—	—	—	—	2	36	38
	1948	1,428	—	—	—	—	1,428	119	1,547	636	—	—	—	—	636	77	713
	1949	38,016	—	61	—	45	38,122	8	38,130	136,674	—	1,731	—	1,020	139,425	70	139,495
Trinidad and Tobago (1) ..	1938	1,650,185	—	4,341	690,592	154	2,345,272	—	2,345,272	21,307	—	157	7,583	11	29,058	—	29,058
	1939	912,684	—	823,857	1,410,760	—	3,147,301	46	3,147,347	9,847	—	8,888	18,435	—	37,170	24	37,194
	1946	70	—	—	—	432	502	1,205	1,707	40	—	—	—	262	302	536	838
	1947	950	—	—	378	18,692	20,020	1,012	21,032	420	—	—	250	10,587	11,257	733	11,990
	1948	77	—	—	—	332	409	510	919	47	—	—	—	228	275	350	625
	1949	31,870	—	—	1,491,909	39	1,523,818	425	1,524,243	10,147	—	—	10,318	60	20,525	152	20,677
St. Lucia	1938	—	—	—	150,238	—	150,238	40	150,278	—	—	—	3,085	—	3,085	1	3,086
	1939	—	—	—	128,377	—	128,377	12	128,389	—	—	—	3,026	—	3,026	1	3,027
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..	7
	1948	..	..	..	..	..	..	..	160,891	..	..	..	..	..	..	..	6,233
	1949	—	—	—	10,369	—	10,369	—	10,369	—	—	—	335	—	335	—	335
St. Vincent	1938	—	—	148,745	65,295	—	214,040	—	214,040	—	—	9,311	3,006	—	12,317	—	12,317
	1939	—	—	136,814	42,744	—	179,558	—	179,558	—	—	9,599	1,867	—	11,466	—	11,466
	1946	—	—	—	—	—	—	220	220	—	—	—	—	—	—	16	16
	1947	—	—	—	—	—	—	40	40	—	—	—	—	—	—	2	2
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals .. .. .. (Excluding Leeward Islands and St. Lucia)	1938	4,986,049	—	1,267,117	10,325,898	49,886	16,628,950	177,637	16,806,587	83,205	—	83,827	427,128	1,718	595,878	2,110	597,988
	1939	3,527,137	—	4,086,150	11,187,143	50,068	18,850,498	318,331	19,168,829	63,807	—	97,930	503,676	1,706	667,119	3,624	670,743
	1946	2,169,707	—	679,241	5,754,967	432	8,604,347	159,574	8,763,921	44,723	—	80,796	695,390	262	821,171	6,141	827,312
	1947	3,842,385	—	650,423	7,214,362	18,692	11,725,862	24,102	11,749,964	105,411	—	94,853	1,051,027	10,587	1,261,878	2,418	1,264,296
	1948	1,735,632	—	89,037	6,457,267	332	8,282,268	14,955	8,297,223	53,181	—	14,283	1,035,853	228	1,103,545	2,461	1,106,006
	1949	4,115,310	17	261,110	7,427,480	84	11,804,001	4,189	11,808,190	254,603	3	40,344	636,312	1,080	932,342	777	933,119
Western Pacific																	
Fiji (1)	1938	—	3,534,720	—	—	—	3,534,720	—	3,534,720	—	20,613	—	—	—	20,613	—	20,613
	1939	—	2,872,452	—	—	—	2,872,452	—	2,872,452	—	16,751	—	—	—	16,751	—	16,751
	1946	—	2,373,010	—	—	—	2,373,010	—	2,373,010	—	13,839	—	—	—	13,839	—	13,839
	1947	—	3,395,840	—	—	—	3,395,840	—	3,395,840	—	19,804	—	—	—	19,804	—	19,804
	1948	—	3,924,171	—	—	—	3,924,171	—	3,924,171	—	22,885	—	—	—	22,885	—	22,885
	1949	—	4,185,247	—	—	—	4,185,247	—	4,185,247	—	24,407	—	—	—	24,407	—	24,407
Grand Totals .. .. (Excluding Leeward Islands and St. Lucia)	1938	4,986,049	3,534,720	1,267,117	10,325,898	49,886	20,163,670	177,637	20,341,307	83,205	20,613	83,827	427,128	1,718	616,491	2,110	618,601
	1939	3,527,137	2,872,452	4,086,150	11,187,143	50,068	21,722,950	318,331	22,041,281	63,807	16,751	97,930	503,676	1,706	683,870	3,624	687,494
	1946	2.169,707	2,373,010	679,241	5,754,967	432	10,977,357	159,574	11,136,931	44,723	13,839	80,796	695,390	262	835,010	6,141	841,151
	1947	3,842,385	3,395,840	650,423	7,214,362	18,692	15,121,702	24,102	15,145,804	105,411	19,804	94,853	1,051,027	10,587	1,281,682	2,418	1,284,100
	1948	1,735,632	3,924,171	89,037	6,457,267	332	12,206,439	14,955	12,221,394	53,181	22,885	14,283	1,035,853	228	1,126,430	2,461	1,128,891
	1949	4,115,310	4,185,264	261,110	7,427,480	84	15,989,248	4,189	15,993,437	254,603	24,410	40,344	636,312	1,080	956,749	777	957,526

N.B.—Small exports from Mauritius have been excluded (See Introductory Note 5).

(1) Converted from weight to liquid measure at the rate of 14·5 lbs. = 1 gallon. (2) St. Kitts-Nevis only. (3) There were no exports in 1938, 1939 and 1946.

TABLE 12 : PAPAIN (1)

		Quantity (Cwts.)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda (2) ..	1946	68	—	41	—	—	109	—	109	4,304	—	3,219	—	—	7,523	—	7,523
	1947	63	—	85	—	—	148	7	155	6,270	—	10,046	—	—	16,316	1,034	17,350
	1948	53	—	635	—	—	688	15	703	4,444	—	52,505	—	—	56,949	1,771	58,720
	1949	63	—	932	—	16	1,011	—	1,011	2,791	—	48,250	—	671	51,712	—	51,712
Tanganyika (2)	1946	40	—	478	—	—	518	1,478	1,996	3,234	—	33,665	—	—	36,899	149,299	186,198
	1947	34	—	862	—	1	897	1,282	2,179	3,441	—	117,741	—	79	121,261	185,224	306,485
	1948	43	—	976	—	—	1,019	1,590	2,609	4,290	—	81,183	—	—	85,473	109,534	195,007
	1949	241	—	2,150	—	5	2,396	—	2,396	9,378	—	82,105	—	318	91,801	—	91,801
Totals	1946	108	—	519	—	—	627	1,478	2,105	7,538	—	36,884	—	—	44,422	149,299	193,721
	1947	97	—	947	—	1	1,045	1,289	2,334	9,711	—	127,787	—	79	137,577	186,258	323,835
	1948	96	—	1,611	—	—	1,707	1,605	3,312	8,734	—	133,688	—	—	142,422	111,305	253,727
	1949	304	—	3,082	—	21	3,407	—	3,407	12,169	—	130,355	—	989	143,513	—	143,513

(1) The dried latex of the fruit of the Papaw.

(2) Details not available for 1938 and 1939. Tanganyika's inter-colonial trade consisted entirely of exports to Kenya and Uganda.

Kenya and Uganda imported no other papain (except in 1949 when Kenya imported from the Belgian Congo 1 cwt. valued at £83) so that the re-exports of Kenya and Uganda were made up entirely of imports from Tanganyika. These re-exports were sent to the following destinations :—

Kenya and Uganda : Re-exports of Papain

Year	U.K.	Other parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total Re-exports, excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Re-exports
	Quantity (cwts.)							
1946	54	—	1,538	60	1	1,653	18	1,671
1947	89	—	1,780	—	2	1,871	—	1,871
1948	67	—	1,092	5	20	1,184	—	1,184
	Value (£)							
1946	4,633	—	135,039	7,056	45	146,773	1,020	147,793
1947	11,530	—	254,807	—	253	266,590	—	266,590
1948	7,018	—	95,916	600	2,274	105,808	—	105,808

Thus the relevant destinations shown in the main table should logically be increased approximately by the figures shown above as being re-exports of Kenya and Uganda.

TABLE 13 : RUM

Colony, etc.	Year	Quantity (Gallons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies																	
Barbados	1938	14,109	—	2,779	15,467	17,732	50,087	54,961	105,048	1,323	—	260	1,450	1,662	4,695	5,153	9,848
	1939	39,216	—	3,358	7,826	8,057	58,457	47,001	105,458	3,676	—	314	734	756	5,480	4,407	9,887
	1946	532,569	—	127,330	236,882	27,306	924,087	310,740	1,234,827	110,107	—	26,503	48,944	5,667	191,221	64,023	255,244
	1947	969,729	—	655	90,194	67,233	1,127,811	339,843	1,467,654	228,236	—	157	21,121	15,954	265,468	78,235	343,703
	1948	312,403	—	206	88,577	9,317	410,503	426,473	836,976	140,581	—	93	39,859	4,193	184,726	191,913	376,639
	1949	51,079	—	89,422	87,854	13,166	241,521	406,267	647,788	23,679	—	20,743	65,524	8,006	117,952	137,290	255,242
British Guiana	1938	770,145	—	5,127	136,773	106,435	1,018,480	51,488	1,069,968	73,223	—	1,359	12,223	8,102	94,907	4,282	99,189
	1939	790,050	—	3,627	131,286	15,938	940,901	48,985	989,886	74,368	—	624	11,865	1,684	88,541	4,709	93,250
	1946	1,392,652	—	16,679	226,235	26,145	1,661,711	34,345	1,696,056	288,279	—	4,060	63,533	8,182	364,054	9,122	373,176
	1947	1,194,758	—	77	341,942	123,741	1,660,518	65,378	1,725,896	262,548	—	104	96,583	36,069	395,304	18,044	413,348
	1948	2,669,337	—	6,539	389,143	86,515	3,151,534	61,172	3,212,706	590,599	—	1,315	119,419	27,651	738,984	19,129	758,113
	1949	3,090,549	2	75	537,469	9,340	3,637,435	47,020	3,684,455	797,144	2	94	176,379	3,906	977,525	15,333	992,858
Jamaica	1938	615,827	1,226	45,310	32,125	169,069	863,557	42,405	905,962	126,482	722	48,130	14,691	53,414	243,439	11,073	254,512
	1939	492,748	3,601	72,050	20,219	202,602	791,220	54,468	845,688	95,268	2,268	74,180	11,317	57,669	240,702	12,917	253,619
	1946	1,285,859	25,332	79,351	528,738	45,645	1,964,925	32,791	1,997,716	1,195,620	22,848	94,718	584,558	57,425	1,955,169	22,416	1,977,585
	1947	2,041,816	10,840	26,163	163,169	51,161	2,293,149	18,940	2,312,089	2,285,758	15,117	32,996	179,359	48,087	2,561,317	17,257	2,578,574
	1948(2)	1,620,564	2,800	62,540	110,850	73,170	1,869,924	—	1,869,924	1,778,270	4,075	55,820	142,241	63,344	2,043,750	—	2,043,750
	1949(3)	1,268,608	19,581	68,096	168,598	96,339	1,621,222	19,642	1,640,864	974,111	18,779	91,453	120,889	73,455	1,278,687	14,081	1,292,768
Trinidad and Tobago ..	1938	78,322	—	1,711	2,977	1,315	84,325	64	84,389	7,930	—	1,835	1,229	1,305	12,299	58	12,357
	1939	177,007	—	2,000	2,753	1,005	182,765	192	182,957	16,173	—	1,950	1,497	932	20,552	59	20,611
	1946	388,311	4,697	1,512	147,472	63,440	605,432	11,688	617,120	71,495	5,969	1,710	142,083	23,639	244,896	11,218	256,114
	1947	663,683	10,899	2,861	93,263	51,041	821,747	23,065	844,812	242,138	10,871	4,962	62,334	37,733	358,038	26,044	384,082
	1948	1,005,373	5,303	157	33,325	20,124	1,064,282	35,732	1,100,014	517,993	6,018	258	57,465	23,396	605,130	45,391	650,521
	1949	1,665,204	1,256	428	30,333	16,823	1,714,044	59,025	1,773,069	526,156	1,599	665	36,752	15,021	580,193	68,070	648,263
Totals	1938	1,478,403	1,226	54,927	187,342	294,551	2,016,449	148,918	2,165,367	208,958	722	51,584	29,593	64,483	355,340	20,566	375,906
	1939	1,499,021	3,601	81,035	162,084	227,602	1,973,343	150,646	2,123,989	189,485	2,268	77,068	25,413	61,041	355,275	22,092	377,367
	1946	3,599,391	30,029	224,872	1,139,327	162,536	5,156,155	389,564	5,545,719	1,665,501	28,817	126,991	839,118	94,913	2,755,340	106,779	2,862,119
	1947	4,869,986	21,739	29,756	688,568	293,176	5,903,225	447,226	6,350,451	3,018,680	25,988	38,219	359,397	137,843	3,580,127	139,580	3,719,707
	1948	5,607,677	8,103	69,442	621,895	189,126	6,496,243	523,377	7,019,620	3,027,443	10,093	57,486	358,984	118,584	3,572,590	256,433	3,829,023
	1949	6,075,440	20,839	158,021	824,254	135,668	7,214,222	531,954	7,746,176	2,321,090	20,380	112,955	399,544	100,388	2,954,357	234,774	3,189,131
Atlantic and Indian Oceans																	
Mauritius (1)	1938	28,056	—	—	—	—	28,056	3,854	31,910	2,975	—	—	—	—	2,975	420	3,395
	1939	47,042	—	—	—	—	47,042	2,310	49,352	5,700	—	—	—	—	5,700	282	5,982
	1946	811,698	—	—	—	—	811,698	4,796	816,494	193,615	—	—	—	—	193,615	1,144	194,759
	1947	1,210,734	4	—	—	—	1,210,738	4,716	1,215,454	288,801	1	—	—	—	288,802	1,124	289,926
	1948	1,151,373	—	—	—	—	1,151,373	366	1,151,739	274,641	—	—	—	—	274,641	87	274,728
	1949	1,313,708	—	—	—	—	1,313,708	2,985	1,316,693	313,364	—	—	—	—	313,364	712	314,076
Grand Totals	1938	1,506,459	1,226	54,927	187,342	294,551	2,044,505	152,772	2,197,277	211,933	722	51,584	29,593	64,483	358,315	20,986	379,301
	1939	1,546,063	3,601	81,035	162,084	227,602	2,020,385	152,956	2,173,341	195,185	2,268	77,068	25,413	61,041	360,975	22,374	383,349
	1946	4,411,089	30,029	224,872	1,139,327	162,536	5,967,853	394,360	6,362,213	1,859,116	28,817	126,991	839,118	94,913	2,948,955	107,923	3,056,878
	1947	6,080,720	21,743	29,756	688,568	293,176	7,113,963	451,942	7,565,905	3,307,481	25,989	38,219	359,397	137,843	3,868,929	140,704	4,009,633
	1948	6,759,050	8,103	69,442	621,895	189,126	7,647,616	523,743	8,171,359	3,302,084	10,093	57,486	358,984	118,584	3,847,231	256,520	4,103,751
	1949	7,389,148	20,839	158,021	824,254	135,668	8,527,930	534,939	9,062,869	2,634,454	20,380	112,955	399,544	100,388	3,267,721	235,486	3,503,207

N.B.—Other Exporters (See Introductory Note 5) : Leeward Islands ; Dominica ; St. Lucia ; St. Vincent.

(1) Converted from litres at the rate of 4·5435 litres = 1 gallon.

(2) Excludes Ships Stores to the value of £8,232 : Quantity not available.

(3) Excludes Ships Stores : Quantity and value not available.

A. FOODSTUFFS AND TOBACCO

TABLE 14: SUGAR

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda (1) ..	1938	11,188	—	—	—	47	11,235	6,532	17,767	118,954	—	—	—	551	119,505	73,372	192,877
	1939	11,362	—	—	—	46	11,408	4,566	15,974	122,271	—	—	—	676	122,947	57,764	180,711
	1946	—	10	—	—	4,704	4,714	5,613	10,327	—	215	—	—	101,862	102,077	116,136	218,213
	1947	—	7,650	—	—	5,229	12,879	8,420	21,299	2	161,076	—	—	112,429	273,507	178,207	451,714
	1948	5,504	2,520	—	—	12,373	20,397	12,118	32,515	151,268	57,422	—	—	317,258	525,948	270,956	796,904
	1949	—	—	—	—	1,324	1,324	1,250	2,574	9	—	—	—	32,708	32,717	26,694	59,411
Tanganyika (2)	1938	4,022	—	—	—	—	4,022	10	4,032	40,220	—	—	—	—	40,220	155	40,375
	1939	2,311	—	—	—	—	2,311	1,353	3,664	23,108	—	—	—	1	23,109	17,120	40,229
	1946	—	—	—	—	2	2	313	315	—	—	—	—	69	69	6,695	6,764
	1947	—	386	—	—	12	398	440	838	—	9,663	—	—	369	10,032	10,246	20,278
	1948	—	—	—	—	22	22	546	568	—	—	—	—	667	667	13,675	14,342
	1949	—	6	—	—	5	11	98	109	—	140	—	—	169	309	2,428	2,737
Totals	1938	15,210	—	—	—	47	15,257	6,542	21,799	159,174	—	—	—	551	159,725	73,527	233,252
	1939	13,673	—	—	—	46	13,719	5,919	19,638	145,379	—	—	—	677	146,056	74,884	220,940
	1946	—	10	—	—	4,706	4,716	5,926	10,642	—	215	—	—	101,931	102,146	122,831	224,977
	1947	—	8,036	—	—	5,241	13,277	8,860	22,137	2	170,739	—	—	112,798	283,539	188,453	471,992
	1948	5,504	2,520	—	—	12,395	20,419	12,664	33,083	151,268	57,422	—	—	317,925	526,615	284,631	811,246
	1949	—	6	—	—	1,329	1,335	1,348	2,683	9	140	—	—	32,877	33,026	29,122	62,148
West Indies																	
Leeward Islands (3) ..	1938	21,351	—	—	25,200	2	46,553	772	47,325	161,493	—	—	208,120	25	369,638	7,959	377,597
	1939	41,600	—	—	14,200	3	55,803	889	56,692	424,748	2	—	134,561	42	559,353	9,285	568,638
	1946	52,965	—	—	—	298	53,263	588	53,851	953,000	—	—	—	5,000	958,000	11,000	969,000
	1947	47,979	—	—	—	152	48,131	660	48,791	1,104,000	—	—	—	3,000	1,107,000	15,000	1,122,000
	1948	39,443	—	—	—	142	39,585	1,348	40,933	947,000	—	—	—	3,000	950,000	32,000	982,000
	1949	..	..	..	..	..	..	..	50,572	..	..	..	..	..	..	..	1,319,572
Barbados	1938	61,520	—	—	18,943	35	80,498	414	80,912	518,887	—	—	160,104	310	679,301	3,798	683,099
	1939	72,177	—	—	56,032	52	128,261	333	128,594	716,505	—	—	557,168	487	1,274,160	4,135	1,278,295
	1946	55,266	—	—	40,000	—	95,266	2,852	98,118	1,005,050	—	—	727,451	—	1,732,501	57,016	1,789,517
	1947	40,837	—	—	37,179	—	78,016	4,445	82,461	920,024	—	—	852,018	—	1,772,042	107,213	1,879,255
	1948	24,085	—	—	19,998	—	44,083	5,569	49,652	566,602	—	—	487,868	—	1,054,470	147,750	1,202,220
	1949	81,169	—	—	43,499	—	124,668	1,941	126,609	2,090,368	—	—	1,125,537	—	3,215,905	57,999	3,273,904
British Guiana	1938	58,509	—	—	124,792	14	183,315	171	183,486	504,106	—	—	1,072,242	181	1,576,529	1,474	1,578,003
	1939	76,216	—	—	102,434	9	178,659	451	179,110	713,275	—	—	976,431	138	1,689,844	4,888	1,694,732
	1946	80,267	—	—	67,486	27	147,780	—	147,780	1,388,328	—	—	1,181,858	601	2,570,787	—	2,570,787
	1947	117,288	—	—	67,821	3	185,112	—	185,112	2,488,867	—	—	1,485,226	91	3,974,184	—	3,974,184
	1948	71,673	—	—	65,000	13	136,686	—	136,686	1,791,868	—	—	1,635,907	348	3,428,123	—	3,428,123
	1949	79,679	—	—	94,139	15	173,833	—	173,833	2,001,522	—	—	2,384,845	435	4,386,802	—	4,386,802
British Honduras (4) ..	1949	352	—	—	—	—	352	—	352	9,780	—	—	—	—	9,780	—	9,780
Jamaica	1938	13,528	—	—	91,476	—	105,004	30	105,034	108,814	—	—	750,377	—	859,191	309	859,500
	1939	40,718	—	—	63,057	—	103,775	8	103,783	401,358	—	—	588,085	—	989,443	120	989,563
	1946	93,395	—	—	53,101	—	146,496	2,199	148,695	1,727,803	—	—	982,379	—	2,710,182	51,976	2,762,158
	1947	85,174	—	—	41,905	—	127,079	833	127,912	1,767,735	—	—	869,454	3	2,637,192	18,756	2,655,948
	1948	94,692	—	—	54,814	1,329	150,835	—	150,835	2,242,166	—	—	1,301,840	38,157	3,582,163	—	3,582,163
	1949	73,840	—	—	115,166	—	189,006	4,029	193,035	1,853,420	—	—	2,722,379	—	4,575,799	126,738	4,702,537
St. Lucia	1938	3,308	—	—	4,498	—	7,806	—	7,806	27,114	—	—	37,597	—	64,711	—	64,711
	1939	4,882	—	—	2,300	—	7,182	—	7,182	43,397	—	—	20,860	—	64,257	—	64,257
	1946	4,320	—	—	—	—	4,320	—	4,320	73,822	—	—	—	—	73,822	—	73,822
	1947	3,941	—	—	—	—	3,941	—	3,941	88,179	—	—	—	—	88,179	—	88,179
	1948	6,568	—	—	—	—	6,568	—	6,568	137,298	—	—	—	—	137,298	—	137,298
	1949	7,516	—	—	—	—	7,516	—	7,516	170,721	—	—	—	—	170,721	—	170,721
St. Vincent	1938	300	—	—	—	—	300	—	300	2,663	—	—	—	—	2,663	—	2,663
	1939	200	—	—	—	—	200	—	200	2,200	—	—	—	—	2,200	—	2,200
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	400	—	—	—	—	400	—	400	11,683	—	—	—	—	11,683	—	11,683
	1949	250	—	—	—	—	250	—	250	7,302	—	—	—	—	7,302	—	7,302

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies—(*continued*).																	
Trinidad and Tobago ..	1938	75,772	—	—	44,481	4	120,257	—	120,257	646,105	—	—	386,732	54	1,032,891	18	1,032,909
	1939	74,361	—	—	39,978	5	114,344	—	114,344	704,415	—	—	355,330	53	1,059,798	—	1,059,798
	1946	51,982	—	—	34,950	130	87,062	—	87,062	791,335	—	—	578,108	4,222	1,373,665	—	1,373,665
	1947	66,750	—	—	22,786	128	89,664	—	89,664	1,289,397	—	—	395,706	4,709	1,689,812	1	1,689,813
	1948	75,063	—	—	20,002	80	95,145	—	95,145	2,033,903	—	—	519,266	3,717	2,556,886	4	2,556,890
	1949	64,583	—	—	74,057	61	138,701	11	138,712	1,746,016	—	—	1,948,682	2,676	3,697,374	1,010	3,698,384
Totals (3)	1938	234,288	—	—	309,390	55	543,733	1,387	545,120	1,969,182	—	—	2,615,172	570	4,584,924	13,558	4,598,482
	1939	310,154	—	—	278,001	69	588,224	1,681	589,905	3,005,898	2	—	2,632,435	720	5,639,055	18,428	5,657,483
	1946	338,195	—	—	195,537	455	534,187	5,639	539,826	5,939,338	—	—	3,469,796	9,823	9,418,957	119,992	9,538,949
	1947	361,969	—	—	169,691	283	531,943	5,938	537,881	7,658,202	—	—	3,602,404	7,803	11,268,409	140,970	11,409,379
	1948	311,924	—	—	159,814	1,564	473,302	6,917	480,219	7,730,520	—	—	3,944,881	45,222	11,720,623	179,754	11,900,377
	1949	..	..	..	..	..	..	..	690,879	..	..	..	..	..	..	..	17,569,002
Western Pacific																	
Fiji	1938	75,296	1,111	—	57,983	21	134,411	4	134,415	702,054	9,552	—	493,754	173	1,205,533	37	1,205,570
	1939	49,343	91	—	68,793	237	118,464	6	118,470	560,451	1,055	—	720,448	2,395	1,284,349	69	1,284,418
	1946	17,418	53,196	—	34,835	505	105,954	320	106,274	315,803	951,079	—	620,471	9,162	1,896,515	5,789	1,902,304
	1947	—	68,814	—	34,120	1,511	104,445	7,988	112,433	—	1,585,972	—	756,686	32,354	2,375,012	183,823	2,558,835
	1948	17,738	64,164	—	65,476	1,727	149,105	389	149,494	457,833	1,640,295	—	1,690,001	44,568	3,832,697	10,011	3,842,708
	1949	—	40,658	7	68,292	1,512	110,469	499	110,968	—	1,061,991	196	1,773,470	39,252	2,874,909	12,950	2,887,859
Atlantic and Indian Oceans																	
Mauritius	1938	286,177	—	—	—	—	286,177	2,067	288,244	2,444,087	—	—	—	1	2,444,088	14,194	2,458,282
	1939	268,486	—	—	16,863	—	285,349	4,600	289,949	2,547,659	—	—	164,991	—	2,712,650	46,111	2,758,761
	1946	—	97,731	—	—	92,702	190,433	39,627	230,060	—	2,172,500	—	—	2,060,704	4,233,204	880,878	5,114,082
	1947	33,903	59,239	—	—	80,440	173,582	119,497	293,079	915,144	1,417,405	—	—	1,855,131	4,187,680	2,544,243	6,731,923
	1948	184,516	74,779	—	—	21,624	280,919	98,833	379,752	4,816,154	1,972,814	—	—	564,179	7,353,147	2,579,680	9,932,827
	1949	292,361	62,311	—	32,356	16,086	403,114	24,771	427,885	8,002,321	1,699,934	—	887,322	449,439	11,039,016	667,694	11,706,710
Grand Totals (3)	1938	610,971	1,111	—	367,373	123	979,578	10,000	989,578	5,274,497	9,552	—	3,108,926	1,295	8,394,270	101,316	8,495,586
	1939	641,656	91	—	363,657	352	1,005,756	12,206	1,017,962	6,259,387	1,057	—	3,517,874	3,792	9,782,110	139,492	9,921,602
	1946	355,613	150,937	—	230,372	98,368	835,290	51,512	886,802	6,255,141	3,123,794	—	4,090,267	2,181,620	15,650,822	1,129,490	16,780,312
	1947	395,872	136,089	—	203,811	87,475	823,247	142,283	965,530	8,573,348	3,174,116	—	4,359,090	2,008,086	18,114,640	3,057,489	21,172,129
	1948	519,682	141,463	—	225,290	37,310	923,745	118,803	1,042,548	13,155,775	3,670,531	—	5,634,882	971,894	23,433,082	3,054,076	26,487,158
	1949	..	..	..	..	..	..	..	1,232,415	..	..	..	..	..	..	..	32,225,719

N.B.—Small exports from Grenada have been excluded (See Introductory Note 5).

(1) Kenya and Uganda's inter-colonial trade was almost entirely with Tanganyika and Zanzibar Protectorate. The former's imports were, save for a few tons, from Kenya and Uganda : it had, except for a ton or two, no re-export trade.

(2) Tanganyika's inter-colonial trade was entirely with Kenya and Uganda who imported practically no sugar from other sources. Kenya and Uganda's re-exports, which thus, originated in Tanganyika, went to the following destinations :—

Year	*Other parts of Sterling Area*	*Other Countries*	*Colonial Territories including Tanganyika*	*Total*
	Quantity (Tons)			
1938	—	—	4	4
1939	—	50	354	404
1946	—	—	2	2
1947	500	—	9	509
1948	340	—	35	375
	Value (£)			
1938	—	6	53	59
1939	—	701	5,375	6,076
1946	—	—	43	43
1947	12,500	—	226	12,726
1948	8,691	—	1,100	9,791

(3) The value of exports from the Leeward Islands has been estimated at the following rates ; 1946–£18 per ton ; 1947–£23 per ton ; 1948–£24 per ton.

(4) There were no exports in 1938, 1939 and 1946–48.

A. FOODSTUFFS AND TOBACCO

TABLE 15: TEA

Colony, etc.	Year	Quantity (lbs.)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda (1)	1938	8,947,008	58,688	—	—	14,224	9,019,920	549,360	9,569,280	471,817	3,324	—	—	802	475,943	32,123	508,066
	1939	8,601,600	698,096	34,608	382,592	6,720	9,723,616	465,472	10,189,088	432,880	34,675	1,590	19,128	470	488,743	26,211	514,954
	1946	5,197,920	4,032	—	—	3,822,896	9,024,848	1,268,288	10,293,136	267,361	337	—	—	272,848	540,546	79,755	620,301
	1947	2,081,072	681,184	1,521,744	2,087,232	4,149,712	10,520,944	1,481,984	12,002,928	143,601	62,660	183,835	245,284	394,131	1,029,511	118,039	1,147,550
	1948	597,408	339,472	1,577,296	2,293,872	2,017,568	6,825,616	1,441,776	8,267,392	60,116	34,469	197,878	273,098	181,257	746,818	124,974	871,792
	1949	1,795,808	463,680	1,384,880	1,581,776	2,454,480	7,680,624	553,056	8,233,680	182,045	44,503	180,925	228,968	246,460	882,901	56,827	939,728
Tanganyika (2)	1938	292,880	—	—	—	8,064	300,944	14,448	315,392	17,879	—	—	—	520	18,399	907	19,306
	1939	370,496	—	—	—	19,488	389,984	46,368	436,352	22,644	—	—	—	1,031	23,675	3,169	26,844
	1946	1,399,104	—	—	—	1,680	1,400,784	—	1,400,784	78,275	—	—	—	151	78,426	—	78,426
	1947	130,256	—	146,720	596,400	24,864	898,240	100,240	998,480	7,390	—	13,703	34,328	1,703	57,124	8,375	65,499
	1948	38,640	28,896	137,200	808,416	17,472	1,030,624	3,696	1,034,320	3,979	1,561	14,047	44,748	1,555	65,890	255	66,145
	1949	104,720	20,832	195,104	628,096	8,064	956,816	—	956,816	10,053	1,514	11,309	46,310	522	69,708	—	69,708
Nyasaland Protectorate	1938	10,105,492	58,165	—	15,750	30,032	10,209,439	9,382	10,218,821	443,866	2,464	—	722	1,055	448,107	370	448,477
	1939	11,183,455	112,157	—	—	76,483	11,372,095	12,954	11,385,049	372,783	3,738	—	—	2,549	379,070	432	379,502
	1946	13,044,923	552,640	—	—	92,638	13,690,201	149,008	13,839,209	706,600	29,934	—	—	5,019	741,553	8,071	749,624
	1947	10,804,414	1,938,017	8,335	40,030	27,717	12,818,513	121,315	12,939,828	706,384	129,699	555	2,710	1,718	841,066	8,106	849,172
	1948	12,822,278	1,198,258	108,330	892,628	25,140	15,046,634	24,021	15,070,655	1,148,623	107,007	9,930	80,403	2,298	1,348,261	2,184	1,350,445
	1949	10,126,158	1,686,895	358,213	476,625	42,205	12,690,096	79,856	12,769,952	928,231	154,632	32,836	43,690	3,869	1,163,258	7,320	1,170,578
Totals	1938	19,345,380	116,853	—	15,750	52,320	19,530,303	573,190	20,103,493	933,562	5,788	—	722	2,377	942,449	33,400	975,849
	1939	20,155,551	810,253	34,608	382,592	102,691	21,485,695	524,794	22,010,489	828,307	38,413	1,590	19,128	4,050	891,488	29,812	921,300
	1946	19,641,947	556,672	—	—	3,917,214	24,115,833	1,417,296	25,533,129	1,052,236	30,271	—	—	278,018	1,360,525	87,826	1,448,351
	1947	13,015,742	2,619,201	1,676,799	2,723,662	4,202,293	24,237,697	1,703,539	25,941,236	857,375	192,359	198,093	282,322	397,552	1,927,701	134,520	2,062,221
	1948	13,458,326	1,566,626	1,822,826	3,994,916	2,060,180	22,902,874	1,469,493	24,372,367	1,212,718	143,037	221,855	398,249	185,110	2,160,969	127,413	2,288,382
	1949	12,026,686	2,171,407	1,938,197	2,686,497	2,504,749	21,327,536	632,912	21,960,448	1,120,329	200,649	225,070	318,968	250,851	2,115,867	64,147	2,180,014
Atlantic and Indian Oceans																	
Mauritius	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1939	147	—	—	—	—	147	—	147	2	—	—	—	—	2	—	2
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	160	160	55	215	—	—	—	—	16	16	9	25
	1948	4	—	—	—	12,875	12,879	—	12,879	—	—	—	—	2,065	2,065	—	2,065
	1949	11,052	17,637	—	—	4,486	33,175	813	33,988	1,505	2,400	—	—	975	4,880	146	5,026
Grand Totals	1938	19,345,380	116,853	—	15,750	52,320	19,530,303	573,190	20,103,493	933,562	5,788	—	722	2,377	942,449	33,400	975,849
	1939	20,155,698	810,253	34,608	382,592	102,691	21,485,842	524,794	22,010,636	828,309	38,413	1,590	19,128	4,050	891,490	29,812	921,302
	1946	19,641,947	556,672	—	—	3,917,214	24,115,833	1,417,296	25,533,129	1,052,236	30,271	—	—	278,018	1,360,525	87,826	1,448,351
	1947	13.015.742	2,619,201	1,676,799	2,723,662	4,202,453	24,237,857	1,703,594	25,941,451	857,375	192,359	198,093	282,322	397,568	1,927,717	134,529	2,062,246
	1948	13,458,330	1,566,626	1,822,826	3,994,916	2,073,055	22,915,753	1,469,493	24,385,246	1,212,718	143,037	221,855	398,249	187,175	2,163,034	127,413	2,290,447
	1949	12,037,738	2,189,044	1,938,197	2,686,497	2,509,235	21,360,711	633,725	21,994,436	1,121,834	203,049	225,070	318,968	251,826	2,120,747	64,293	2,185,040

(1) Inter-colonial trade was largely with Tanganyika and Zanzibar Protectorate for the years 1938-1948. In 1949 trade with Tanganyika is excluded and exports to Zanzibar Protectorate account for more than half the trade. Tanganyika's imports were almost entirely from Kenya and Uganda and except for a small proportion were not re-exported.

(2) With the exception of some trade with Zanzibar Protectorate in the pre-war years, the inter-colonial trade went to Kenya and Uganda. Kenya and Uganda's imports were, in the post-war years, mainly from Tanganyika. Kenya and Uganda's re-export trade was very small except in 1947 when it amounted to about 32,000 lbs. sent to the U.S.A.

TABLE 16: TOBACCO (UNMANUFACTURED)

		Quantity (lbs.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda (1) ..	1938	157,783	—	—	—	—	157,783	140,406	298,189	4,232	—	—	—	—	4,232	3,794	8,026
	1939	297,730	—	—	—	7	297,737	161,713	459,450	8,865	—	—	—	1	8,866	3,320	12,186
	1946	138,840	—	—	—	120,163	259,003	198,018	457,021	3,599	—	—	—	5,703	9,302	4,340	13,642
	1947	61,311	—	—	—	99,051	160,362	121,996	282,358	1,938	—	—	—	4,130	6,068	3,005	9,073
	1948	227,201	—	—	—	105,713	332,914	26,574	359,488	7,455	—	—	—	6,496	13,951	1,115	15,066
	1949	164,763	—	—	—	147,448	312,211	—	312,211	10,798	—	—	—	7,098	17,896	—	17,896
Tanganyika (1)	1938	—	—	—	—	22	22	491,786	491,808	—	—	—	—	1	1	17,214	17,215
	1939	—	—	—	—	154	154	962,669	962,823	—	—	—	—	4	4	23,130	23,134
	1946	691,085	—	—	—	88,593	779,678	1,289,842	2,069,520	35,680	—	—	—	6,900	42,580	51,167	93,747
	1947	561,497	—	—	—	60,857	622,354	871,750	1,494,104	41,137	—	—	—	1,267	42,404	40,797	83,201
	1948	1,047,068	6,096	—	—	318,226	1,371,390	1,813,112	3,184,502	111,369	914	—	—	35,442	147,725	100,695	248,420
	1949	1,370,288	448	—	—	963,624	2,334,360	73,608	2,407,968	103,760	14	—	—	111,870	215,644	1,892	217,536
Northern Rhodesia ..	1938	1,084,809	716,015	—	—	—	1,800,824	—	1,800,824	35,469	37,492	—	—	—	72,961	—	72,961
	1939	1,214,216	689,139	—	—	60,783	1,964,138	538	1,964,676	40,682	55,886	—	—	735	97,303	38	97,341
	1946	1,359,497	2,245,231	—	—	220,853	3,825,581	7,228	3,832,809	126,455	261,893	—	—	21,191	409,539	542	410,081
	1947	1,929,709	1,371,998	—	—	85	3,301,792	33,437	3,335,229	255,130	201,551	—	—	9	456,690	1,904	458,594
	1948	2,347,681	2,051,251	249,092	49,354	350,068	5,047,446	—	5,047,446	269,525	215,666	33,265	6,564	35,824	560,844	—	560,844
	1949	1,789,117	3,974,997	173,782	19,560	124,161	6,081,617	6,937	6,088,554	219,681	506,506	20,449	2,601	4,047	753,284	730	754,014
Nyasaland Protectorate ..	1938	12,804,345	—	19,968	—	217,887	13,042,200	421,263	13,463,463	373,460	—	582	—	6,354	380,396	12,287	392,683
	1939	11,506,458	1,021	—	—	177,562	11,685,041	802,136	12,487,177	335,605	30	—	—	5,179	340,814	23,396	364,210
	1946	11,120,797	31,976	1,755	—	4,828,629	15,983,157	1,748,421	17,731,578	795,681	2,397	153	—	337,206	1,135,437	117,369	1,252,806
	1947	11,846,682	718,862	—	—	5,832,387	18,397,931	1,609,801	20,007,732	940,932	52,662	—	—	419,361	1,412,955	114,462	1,527,417
	1948	14,118,621	204,307	—	—	7,599,061	21,921,989	1,924,159	23,846,148	1,585,102	7,563	—	—	515,784	2,108,449	141,600	2,250,049
	1949	17,986,510	198,519	—	—	5,636,622	23,821,651	1,667,679	25,489,330	2,497,902	14,829	—	—	384,420	2,897,151	254,190	3,151,341
Totals	1938	14,046,937	716,015	19,968	—	217,909	15,000,829	1,053,455	16,054,284	413,161	37,492	582	—	6,355	457,590	33,295	490,885
	1939	13,018,404	690,160	—	—	238,506	13,947,070	1,927,056	15,874,126	385,152	55,916	—	—	5,919	446,987	49,884	496,871
	1946	13,310,219	2,277,207	1,755	—	5,258,238	20,847,419	3,243,509	24,090,928	961,415	264,290	153	—	371,000	1,596,858	173,418	1,770,276
	1947	14,399,199	2,090,860	—	—	5,992,380	22,482,439	2,636,984	25,119,423	1,239,137	254,213	—	—	424,767	1,918,117	160,168	2,078,285
	1948	17,740,571	2,261,654	249,092	49,354	8,373,068	28,673,739	3,763,845	32,437,584	1,973,451	224,143	33,265	6,564	593,546	2,830,969	243,410	3,074,379
	1949	21,310,678	4,173,964	173,782	19,560	6,871,855	32,549,839	1,748,224	34,298,063	2,832,141	521,349	20,449	2,601	507,435	3,883,975	256,812	4,140,787
South Africa																	
High Commission Territories—Swaziland (2)	1938	—	234,058	—	—	—	234,058	—	234,058	—	8,174	—	—	—	8,174	—	8,174
	1939	—	266,000	—	—	—	266,000	—	266,000	—	9,711	—	—	—	9,711	—	9,711
	1946	—	264,527	—	—	—	264,527	—	264,527	—	17,816	—	—	—	17,816	—	17,816
	1947	—	355,295	—	—	—	355,295	—	355,295	—	28,834	—	—	—	28,834	—	28,834
	1948	—	401,991	—	—	—	401,991	—	401,991	—	29,948	—	—	—	29,948	—	29,948
	1949	—	574,227	—	—	—	574,227	—	574,227	—	43,385	—	—	—	43,385	—	43,385

TABLE 16: TOBACCO (UNMANUFACTURED)—(*continued.*)

		Quantity (lbs.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern North Borneo	1938	..	..	..	..	..	..	..	488,069	..	..	..	..	..	..	..	54,959
	1939	..	..	..	..	..	..	..	314,099	..	..	..	..	..	..	..	34,950
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	206,579	..	..	..	..	..	..	..	180,559
	1949	..	..	..	..	..	..	..	273,852	..	..	..	..	..	..	..	241,016
Mediterranean Cyprus	1938	217,952	—	1,232	—	18,368	237,552	4,928	242,480	5,419	—	21	—	482	5,922	178	6,100
	1939	131,936	—	—	—	65,520	197,456	2,688	200,144	2,897	—	—	—	1,737	4,634	96	4,730
	1946	536,592	112	1,008	—	524,496	1,062,208	—	1,062,208	42,829	16	113	—	61,947	104,905	—	104,905
	1947	426,272	—	—	—	777,504	1,203,776	23,184	1,226,960	33,620	—	—	—	72,816	106,436	1,081	107,517
	1948	173,712	560	—	—	916,384	1,090,656	—	1,090,656	12,131	48	—	—	83,319	95,498	—	95,498
	1949	342,160	1,792	47,712	—	357,504	749,168	—	749,168	22,163	207	2,890	—	30,608	55,868	—	55,868
West Indies Jamaica	1938	83,207	—	21,654	—	—	104,861	500	105,361	6,706	—	1,828	—	—	8,534	28	8,562
	1939	145,204	—	50	—	—	145,254	1,014	146,268	9,708	—	3	—	—	9,711	58	9,769
	1946	40,827	—	—	—	—	40,827	55	40,882	6,240	—	—	—	—	6,240	7	6,247
	1947	176,497	—	4	5	20	176,526	190	176,716	5,219	—	1	2	17	5,239	13	5,252
	1948	326,506	—	—	—	35	326,541	403	326,944	21,633	—	—	—	2	21,635	17	21,652
	1949	269,155	—	40	—	1,607	270,802	204,389	475,191	40,995	—	2	—	253	41,250	21,877	63,127
Grand Totals .. .. (Excluding North Borneo)	1938	14,348,096	950,073	42,854	—	236,277	15,577,300	1,058,883	16,636,183	425,286	45,666	2,431	—	6,837	480,220	33,501	513,721
	1939	13,295,544	956,160	50	—	304,026	14,555,780	1,930,758	16,486,538	397,757	65,627	3	—	7,656	471,043	50,038	521,081
	1946	13,887,638	2,541,846	2,763	—	5,782,734	22,214,981	3,243,564	25,458,545	1,010,484	282,122	266	—	432,947	1,725,819	173,425	1,899,244
	1947	15,001,968	2,446,155	4	5	6,769,904	24,218,036	2,660,358	26,878,394	1,277,976	283,047	1	2	497,600	2,058,626	161,262	2,219,888
	1948	18,240,789	2,664,205	249,092	49,354	9,289,487	30,492,927	3,764,248	34,257,175	2,007,215	254,139	33,265	6,564	676,867	2,978,050	243,427	3,221,477
	1949	21,921,993	4,749,983	221,534	19,560	7,230,966	34,144,036	1,952,613	36,096,649	2,895,299	564,941	23,341	2,601	538,296	4,024,478	278,689	4,303,167

N.B.—Other Exporters (See Introductory Note 5): Zanzibar Protectorate; Nigeria; Fiji; Mauritius; Leeward Islands; Dominica; British Honduras.

(1) All Kenya and Uganda's inter-colonial exports went to Tanganyika.
Tanganyika imported up to 1947, almost entirely from Kenya and Uganda (in 1948 the bulk of its imports came from "Other British Possessions"). Tanganyika had no re-exports except for some 3,000 tons in 1947. By far the greater part of Tanganyika's inter-colonial exports went to Kenya and Uganda (1,706,000 lbs. in 1948) and in the post-war years, over half of Kenya and Uganda's imports were from Tanganyika. The great bulk of Kenya and Uganda's re-exports went to Tanganyika in 1947 and 1948. (Previously re-exports had been small).

(2) Direction of trade for 1948 and 1949 has been assumed as actual figures are not yet available.

TABLE 17 : TOBACCO (CIGARS)

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*United Kingdom*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and New-foundland*	*Other Countries*	*Total Excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies																		
Jamaica ..	1938	lbs.	5,597	200	263	1,883	17,404	25,347	6,925	32,272	5,239	195	196	1,556	6,058	13,244	3,784	17,028
	1939	„	4,564	157	1,111	1,657	17,331	24,820	5,513	30,333	4,302	154	996	1,399	6,721	13,572	3,162	16,734
	1946	„	—	—	—	—	677	677	—	677	—	—	—	—	753	753	—	753
		Nos.	14,266,516	—	77,872	180,825	858,288	15,383,501	589,125	15,972,626	513,956	—	3,413	3,474	17,787	538,630	8,951	547,581
	1947	lbs.	—	—	—	—	226	226	—	226	—	—	—	—	327	327	—	327
		Nos.	25,749,823	479,415	6,370	275,260	1,074,729	27,585,597	614,626	28,200,223	855,414	18.052	204	5,500	18,748	897,918	7,716	905,634
	1948(1)	„	13,183,659	666,185	12,314	13,691	1,375,900	15,251,749	1,147,904	16,399,653	446,861	19.547	421	337	20,916	488,082	13,843	501,925
	1949(2)	lbs.	147,013	15,167	164	168	17,636	180,148	20,920	201,068	324,257	27,921	353	320	13,298	366,149	20,639	386,788

N.B.—Other Exporters (See Introductory Note 5) : Kenya and Uganda ; Leeward Islands ; Dominica.

(1) Excludes ships' stores to the value of £531 : Quantity not available.

(2) Excludes ships' stores : Quantity and value not available.

B. SPICES AND CONDIMENTS

TABLE 18: CHILLIES, CAPSICUMS AND PEPPERS

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa Kenya and Uganda (1)	1938	539	138	110	20	30	837	155	992	1,016	273	193	35	53	1,570	198	1,768
(Chillies)	1939	1,239	1,168	440	—	16	2,863	197	3,060	2,886	1,314	1,172	—	19	5,391	184	5,575
	1946	2,950	13,027	1,281	300	1,631	19,189	4,190	23,379	14,033	57,739	6,074	1,703	9,234	88,783	15,614	104,397
	1947	2,996	29,103	554	—	624	33,277	7,135	40,412	16,118	108,844	2,674	—	1,787	129,423	22,333	151,756
	1948	3,395	17,353	385	—	3,545	24,678	9,190	33,868	11,993	38,450	1,543	—	10,309	62,295	20,154	82,449
	1949	1,925	9,414	380	40	220	11,979	557	12,536	12,159	37,498	1,875	175	394	52,101	2,726	54,827
Tanganyika (1) (Chillies) ..	1938	94	130	—	—	18	242	199	441	230	298	—	—	44	572	344	916
	1939	450	5	—	—	163	618	989	1,607	1,174	13	—	—	367	1,554	1,402	2,956
	1946	100	—	—	—	6	106	467	573	470	—	—	—	20	490	1,525	2,015
	1947	164	—	—	—	1	165	247	412	1,116	—	—	—	4	1,120	757	1,877
	1948	459	740	160	—	2	1,361	1,031	2,392	1,901	1,593	438	—	15	3,947	2,349	6,296
	1949	216	904	212	—	22	1,354	33	1,387	1,533	2,985	865	—	116	5,499	154	5,653
Totals	1938	633	268	110	20	48	1,079	354	1,433	1,246	571	193	35	97	2,142	542	2,684
	1939	1,689	1,173	440	—	179	3,481	1,186	4,667	4,060	1,327	1,172	—	386	6,945	1,586	8,531
	1946	3,050	13,027	1,281	300	1,637	19,295	4,657	23,952	14,503	57,739	6,074	1,703	9,254	89,273	17,139	106,412
	1947	3,160	29,103	554	—	625	33,442	7,382	40,824	17,234	108,844	2,674	—	1,791	130,543	23,090	153,633
	1948	3,854	18,093	545	—	3,547	26,039	10,221	36,260	13,894	40,043	1,981	—	10,324	66,242	22,503	88,745
	1949	2,141	10,318	592	40	242	13,333	590	13,923	13,692	40,483	2,740	175	510	57,600	2,880	60,480
West Africa Nigeria	1938	181	—	101	—	2	284	141	425	100	—	58	—	8	166	206	372
	1939	637	—	301	—	22	960	175	1,135	369	—	167	—	57	593	203	796
(Capsicums and Peppers)	1946	10,299	140	18,718	789	2,193	32,139	32	32,171	40,623	890	90,098	2,975	9,972	144,558	59	144,617
	1947	8,831	280	5,584	845	325	15,865	245	16,110	34,168	1,538	33,471	3,179	1,743	74,099	1,128	75,227
	1948	2,713	43	581	135	454	3,926	235	4,161	13,179	315	2,442	573	2,441	18,950	857	19,807
(Chillies, Capsicums & Peppers)	1949	264	20	760	82	312	1,438	9	1,447	1,284	253	3,022	131	1,865	6,555	17	6,572
Grand Totals	1938	814	268	211	20	50	1,363	495	1,858	1,346	571	251	35	105	2,308	748	3,056
	1939	2,326	1,173	741	—	201	4,441	1,361	5,802	4,429	1,327	1,339	—	443	7,538	1,789	9,327
	1946	13,349	13,167	19,999	1,089	3,830	51,434	4,689	56,123	55,126	58,629	96,172	4,678	19,226	233,831	17,198	251,029
	1947	11,991	29,383	6,138	845	950	49,307	7,627	56,934	51,402	110,382	36,145	3,179	3,534	204,642	24,218	228,860
	1948	6,567	18,136	1,126	135	4,001	29,965	10,456	40,421	27,073	40,358	4,423	573	12,765	85,192	23,360	108,552
	1949	2,405	10,338	1,352	122	554	14,771	599	15,370	14,976	40,736	5,762	306	2,375	64,155	2,897	67,052

N.B.—Other Exporters (See Introductory Note 5) : Kenya and Uganda, Bahamas (Peppers) ; Zanzibar Protectorate, North Borneo (Chillies); Nyasaland (Capsicums and Chillies) ; Sierra Leone (Chillies and Peppers) ; Gold Coast (Chillies, Capsicums and Peppers). It is possible that " Peppers " may include some " Pepper."

(1) Kenya and Uganda's inter-colonial exports went to Tanganyika (all years), Aden (1938, 1939 and 1948), Malaya (1946 and 1948). Tanganyika's imports were almost entirely from Kenya and Uganda. The re-exports of Tanganyika were very small except in 1946 when 1,800 cwts. went to U.S.A. Tanganyika's inter-colonial trade went almost entirely to Kenya and Uganda. The imports of the latter came nearly all from Tanganyika. Kenya and Uganda's re-exports were as follows :—

RE-EXPORTS OF KENYA AND UGANDA TO Cwts.

Year	*Tanganyika*	*Other Colonies*	*United Kingdom*	*Other Parts of Sterling Area*	*U.S.A.*	*Other Countries*	*Total*
1938	14	9	—	—	—	—	23
1939	59	20	122	140	—	1	342
1946	—	—	—	—	31	127	158
1947	—	12	—	—	—	14	26
1948	1	27	—	186	75	5	294

TABLE 19: CLOVES

Colony, etc.	Year	Quantity (Cwts.) U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	Value (£) U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Zanzibar Protectorate (1) ..	1938	1,927	31,968	17,075	706	102,411	154,087	3,137	157,224	5,805	110,033	46,825	2,403	339,648	504,714	10,266	514,980
	1939	19,548	83,959	31,849	1,095	125,233	261,684	2,070	263,754	65,412	276,127	98,900	3,661	406,536	850,636	6,950	857,586
	1946	18,129	171,311	14,547	470	21,909	226,366	83,963	310,329	66,969	637,365	52,766	1,780	82,639	841,519	317,823	1,159,342
	1947	5,011	101,813	6,042	435	11,442	124,743	25,945	150,688	18,083	375,236	21,703	1,602	42,281	458,905	96,201	555,106
	1948	2,428	177,200	567	353	15,402	195,950	62,320	258,270	8,512	689,125	2,125	1,257	60,790	761,809	238,595	1,000,404
	1949	14,503	67,263	15,036	876	11,518	109,196	42,608	151,804	85,589	364,135	91,900	5,559	67,923	615,106	228,887	843,993

N.B.—Other Exporters (See Introductory Note 5): Grenada ; St. Lucia. Malaya has a substantial entrepôt trade in this commodity ; its imports and exports were as follows :—

Year	Imports		Exports	
	Quantity (000 Cwts.)	Value (£000)	Quantity (000 Cwts.)	Value (£000)
1938	8	29	7	29
1939	4	13	3	12
1946	91	521	57	369
1947	30	136	55	232
1948	82	342	106	432
1949	102	466	40	214

(1) Including Mother of Cloves.

B. SPICES AND CONDIMENTS

TABLE 20 : CUMIN SEED

Colony, etc.	Year	Quantity (Cwts.)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Mediterranean																	
Cyprus	1938	872	58	2,511	—	8,901	12,342	3,403	15,745	1,187	78	3,348	—	11,088	15,701	4,430	20,131
	1939	526	253	2,467	—	5,678	8,924	5,325	14,249	913	381	4,102	—	8,812	14,208	7,222	21,430
	1946	392	21	199	19	4,368	4,999	—	4,999	2,584	212	1,682	160	38,727	43,365	—	43,365
	1947	499	20	—	—	5,228	5,747	96	5,843	3,669	139	—	—	39,633	43,441	683	44,124
	1948	480	102	—	—	8,769	9,351	94	9,445	2,946	637	—	—	59,546	63,129	581	63,710
	1949	3,914	2,312	—	—	9,837	16,063	288	16,351	22,404	13,249	—	—	59,087	94,740	1,559	96,299
Malta	1938	80	—	—	—	4,111	4,191	—	4,191	110	—	—	—	7,706	7,816	—	7,816
	1939	631	—	1,023	—	2,372	4,026	—	4,026	952	—	2,359	—	5,027	8,338	—	8,338
	1946	—	—	—	—	121	121	—	121	—	—	—	—	892	892	—	892
	1947	438	—	—	—	64	502	—	502	1,092	—	—	—	483	1,575	—	1,575
	1948	14	—	—	—	31	45	—	45	82	—	—	—	294	376	—	376
	1949	—	—	—	—	120	120	—	120	—	—	—	—	540	540	—	540
Grand Totals	1938	952	58	2,511	—	13,012	16,533	3,403	19,936	1,297	78	3,348	—	18,794	23,517	4,430	27,947
	1939	1,157	253	3,490	—	8,050	12,950	5,325	18,275	1,865	381	6,461	—	13,839	22,546	7,222	29,768
	1946	392	21	199	19	4,489	5,120	—	5,120	2,584	212	1,682	160	39,619	44,257	—	44,257
	1947	937	20	—	—	5,292	6,249	96	6,345	4,761	139	—	—	40,116	45,016	683	45,699
	1948	494	102	—	—	8,800	9,396	94	9,490	3,028	637	—	—	59,840	63,505	581	64,086
	1949	3,914	2,312	—	—	9,957	16,183	288	16,471	22,404	13,249	—	—	59,627	95,280	1,559	96,839

		Quantity (Cwts.)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa																	
Nigeria	1938	5,719	—	—	—	1,274	6,993	—	6,993	8,629	—	—	—	1,885	10,514	—	10,514
	1939	4,383	—	—	—	414	4,797	—	4,797	3,776	—	—	—	380	4,156	—	4,156
	1946	640	370	100	—	1	1,111	2	1,113	1,809	1,332	330	—	1	3,472	3	3,475
	1947	2,112	—	147	—	—	2,259	2	2,261	5,543	—	368	—	—	5,911	5	5,916
	1948	2,372	—	—	—	2	2,374	1	2,375	5,433	—	—	—	3	5,436	1	5,437
	1949	1,582	—	601	—	495	2,678	95	2,773	5,684	2	2,339	—	1,948	9,973	407	10,380
Sierra Leone..	1938	14,623	1,963	21,580	1,858	13,150	53,174	926	54,100	17,473	1,780	26,371	1,984	12,346	59,954	726	60,680
	1939	22,699	2,817	14,441	2,949	5,095	48,001	154	48,155	15,532	1,802	9,897	1,907	3,453	32,591	82	32,673
	1946	8,500	761	9,677	—	700	19,638	1	19,639	21,034	1,951	26,529	—	2,303	51,817	2	51,819
	1947	15,579	1,161	9,217	1,948	1,107	29,012	1	29,013	36,779	3,133	23,314	5,402	2,629	71,257	1	71,258
	1948	11,723	453	12,621	200	1,371	26,368	2	26,370	33,703	1,052	34,425	505	3,996	73,681	1	73,682
	1949	19,709	1,884	4,923	321	1,072	27,909	—	27,909	106,276	8,512	24,168	1,850	5,984	146,790	—	146,790
Totals	1938	20,342	1,963	21,580	1,858	14,424	60,167	926	61,093	26,102	1,780	26,371	1,984	14,231	70,468	726	71,194
	1939	27,082	2,817	14,441	2,949	5,509	52,798	154	52,952	19,308	1,802	9,897	1,907	3,833	36,747	82	36,829
	1946	9,140	1,131	9,777	—	701	20,749	3	20,752	22,843	3,283	26,859	—	2,304	55,289	5	55,294
	1947	17,691	1,161	9,364	1,948	1,107	31,271	3	31,274	42,322	3,133	23,682	5,402	2,629	77,168	6	77,174
	1948	14,095	453	12,621	200	1,373	28,742	3	28,745	39,136	1,052	34,425	505	3,999	79,117	2	79,119
	1949	21,291	1,884	5,524	321	1,567	30,587	95	30,682	111,960	8,514	26,507	1,850	7,932	156,763	407	157,170
Eastern Group																	
Hong Kong (1) .. .. Fresh and Salted	1938	52	2,276	3,618	788	1,094	7,828	2,617	10,445	27	1,854	1,908	398	336	4,523	1,075	5,598
	1939	39	875	3,716	625	1,092	6,347	608	6,955	27	782	2,711	458	356	4,334	248	4,582
	1949	—	903	15,555	466	599	17,523	73	17,596	—	3,667	34,244	1,881	2,047	41,839	326	42,165
Preserved	1938	..	..	..	..	..	..	..	..	72,178	23,820	9,088	1,805	25,870	132,761	587	133,348
	1939	..	..	..	..	..	..	..	..	83,518	28,849	18,620	6,758	33,419	171,161	989	172,150
	1949	778	923	15,993	636	605	18,935	130	19,065	10,820	3,969	40,603	4,299	2,166	61,857	1,034	62,891
West Indies																	
Jamaica	1938	14,062	1,488	7,670	2,452	485	26,157	9	26,166	27,030	3,437	14,338	5,154	962	50,921	18	50,939
	1939	13,323	1,170	11,829	2,814	519	29,655	16	29,671	16,384	2,476	16,398	4,422	871	40,551	20	40,571
	1946	5,548	702	22,748	3,040	1,516	33,554	1,169	34,723	55,371	2,927	78,198	12,659	5,576	154,731	5,384	160,115
	1947	16,896	1,389	4,741	3,733	3,740	30,499	227	30,726	66,645	5,794	16,929	15,017	14,146	118,531	1,052	119,583
	1948	8,367	290	12,983	2,795	2,776	27,211	682	27,893	37,019	1,265	57,850	13,599	11,767	121,500	3,106	124,606
	1949	6,932	915	10,078	801	307	19,033	72	19,105	46,809	6,545	68,751	6,058	1,808	129,971	469	130,440
Grand Totals .. .. (Excluding Hong Kong)	1938	34,404	3,451	29,250	4,310	14,909	86,324	935	87,259	53,132	5,217	40,709	7,138	15,193	121,389	744	122,133
	1939	40,405	3,987	26,270	5,763	6,028	82,453	170	82,623	35,692	4,278	26,295	6,329	4,704	77,298	102	77,400
	1946	14,688	1,833	32,525	3,040	2,217	54,303	1,172	55,475	78,214	6,210	105,057	12,659	7,880	210,020	5,389	215,409
	1947	34,587	2,550	14,105	5,681	4,847	61,770	230	62,000	108,967	8,627	40,611	20,419	17,075	195,699	1,058	196,757
	1948	22,462	743	25,604	2,995	4,149	55,953	685	56,638	76,155	2,317	92,275	14,104	15,766	200,617	3,108	203,725
	1949	28,223	2,799	15,602	1,122	1,874	49,620	167	49,787	158,769	15,059	95,258	7,908	9,740	286,734	876	287,610

N.B.—Other Exporters (See Introductory Note 5) : Gold Coast ; Dominica ; St. Lucia ; St. Vincent ; Trinidad and Tobago ; Fiji ; Mauritius. Malaya has a small entrepôt trade in this commodity, but imports exceed exports.

(1) Figures for 1946-8 are not available.

Hong Kong imports of fresh and salted ginger were as follows :—

Year	Quantity ('000 Cwts).	Value (£000)
1938	46	12
1939	13	4
1949	32	61

B. SPICES AND CONDIMENTS

TABLE 22: MACE

Colony, etc.	Year	Quantity (Cwts.)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies																	
Grenada	1938	3,320	—	870	460	400	5,050	28	5,078	26,647	—	6,387	3,001	2,794	38,829	166	38,995
	1939	4,856	—	931	584	505	6,876	—	6,876	36,825	—	6,228	3,154	3,250	49,457	—	49,457
	1946	2,721	466	4,604	152	543	8,486	9	8,495	47,206	5,705	67,031	1,600	8,312	129,854	125	129,979
	1947	3,360	—	2,091	350	30	5,831	61	5,892	88,238	—	58,115	7,386	936	154,675	1,308	155,983
	1948	3,119	—	407	501	—	4,027	12	4,039	77,036	—	12,299	13,652	—	102,987	264	103,251
	1949	3,165	—	2,403	254	437	6,259	44	6,303	64,674	—	43,791	3,973	10,255	122,693	600	123,293

N.B.—Other Exporters (See Introductory Note 5) : Jamaica ; Trinidad and Tobago ; St. Lucia ; St. Vincent ; Seychelles. Malaya has a substantial entrepôt trade in this commodity ; its imports and exports were as follows :—

Year	*Imports*		*Exports*	
	Quantity (000 Cwts.)	*Value* (£000)	*Quantity* (000 Cwts.)	*Value* (£000)
1938	3	24	3	23
1939	3	19	3	21
1946	3	33	2	43
1947	3	27	4	49
1948	3	33	2	40
1949	2	21	3	32

TABLE 23 : NUTMEGS

		Quantity (Cwts.)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philip-pines	Canada and New-foundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philip-pines	Canada and New-foundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Indies																	
Grenada	1938	10,622	60	20,855	2,391	1,925	35,853	416	36,269	20,166	150	44,466	4,905	4,087	73,774	851	74,625
	1939	9,075	316	24,469	2,817	1,170	37,847	472	38,319	19,617	453	45,661	5,340	2,004	73,075	858	73,933
	1946	9,177	1,684	30,896	1,354	6,074	49,185	52	49,237	89,638	10,503	238,811	9,152	59,861	407,965	488	408,453
	1947	8,441	340	23,108	1,910	1,072	34,871	527	35,398	122,159	5,627	265,370	25,739	16,485	435,380	6,945	442,325
	1948	2,580	—	13,251	1,673	186	17,690	314	18,004	24,474	—	155,205	21,508	2,340	203,527	4,576	208,103
	1949	12,193	—	28,790	1,990	1,538	44,511	306	44,817	91,630	—	224,004	16,522	12,417	344,573	2,513	347,086
St. Vincent	1938	188	—	—	—	—	188	4	192	345	—	—	—	—	345	7	352
	1939	28	—	—	—	—	28	788	816	41	—	—	—	—	41	393	434
	1946	38	—	—	—	—	38	33	71	105	—	—	—	—	105	86	191
	1947	40	—	—	—	67	107	16	123	193	—	—	—	394	587	42	629
	1948	48	—	458	67	—	573	19	592	445	—	5,864	625	—	6,934	140	7,074
	1949	27	—	378	9	—	414	1	415	251	—	4,355	79	—	4,685	13	4,698
Totals	1938	10,810	60	20,855	2,391	1,925	36,041	420	36,461	20,511	150	44,466	4,905	4,087	74,119	858	74,977
	1939	9,103	316	24,469	2,817	1,170	37,875	1,260	39,135	19,658	453	45,661	5,340	2,004	73,116	1,251	74,367
	1946	9,215	1,684	30,896	1,354	6,074	49,223	85	49,308	89,743	10,503	238,811	9,152	59,861	408,070	574	408,644
	1947	8,481	340	23,108	1,910	1,139	34,978	543	35,521	122,352	5,627	265,370	25,739	16,879	435,967	6,987	442,954
	1948	2,628	—	13,709	1,740	186	18,263	333	18,596	24,919	—	161,069	22,133	2,340	210,461	4,716	215,177
	1949	12,220	—	29,168	1,999	1,538	44,925	307	45,232	91,881	—	228,359	16,601	12,417	349,258	2,526	351,784

N.B.—Other Exporters (See Introductory Note 5) : Jamaica ; Trinidad and Tobago ; St. Lucia ; Seychelles. Malaya has a substantial entrepôt trade in this commodity ; its imports and exports were as follows :—

Year	Imports		Exports	
	Quantity (000 Cwts.)	Value (£000)	Quantity (000 Cwts.)	Value (£000)
1938	27	50	22	57
1939	31	52	25	65
1946	21	133	15	201
1947	32	155	31	306
1948	37	219	33	339
1949	21	122	20	196

B. SPICES AND CONDIMENTS

TABLE 24: PEPPER

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																	
Federation of Malaya and Singapore (1)	1938	31,110	29,939	2,496	1,575	56,079	121,199	31,341	152,540	41,900	35,011	2,883	2,078	62,147	144,019	35,026	179,045
	1939	44,738	72,284	16,919	1,262	96,417	231,620	70,551	302,171	63,163	78,198	22,380	1,601	115,556	280,898	71,107	352,005
	1946	35,180	37,567	133,658	—	165,207	371,612	33,261	404,873	173,800	344,222	1,308,843	—	1,407,443	3,234,308	162,436	3,396,744
	1947	59,001	38,361	68,271	4,981	75,315	245,929	65,421	311,350	696,567	353,985	714,573	51,273	704,480	2,520,878	641,738	3,162,616
	1948	21,927	20,280	29,400	3,621	81,769	156,997	10,984	167,981	353,404	332,927	354,824	63,310	1,195,944	2,300,409	154,594	2,455,003
	1949	4,297	19,586	4,372	500	64,316	93,071	10,880	103,951	107,719	440,213	112,665	18,471	2,093,565	2,772,633	277,737	3,050,370
Sarawak (2)	1938	. .	. .	. .	. .	. .	. .	. .	60,260	. .	. .	. .	. .	. .	. .	. .	73,925
	1939	. .	. .	. .	. .	. .	. .	. .	57,821	. .	. .	. .	. .	. .	. .	. .	82,953
	1946	. .	. .	. .	. .	. .	. .	. .	13,075	. .	. .	. .	. .	. .	. .	. .	100,321
	1947	. .	. .	. .	. .	. .	. .	. .	31,346	. .	. .	. .	. .	. .	. .	. .	374,908
	1948	. .	. .	. .	. .	. .	. .	. .	8,856	. .	. .	. .	. .	. .	. .	. .	135,245
	1949	. .	. .	. .	. .	. .	. .	. .	6,417	. .	. .	. .	. .	. .	. .	. .	236,366

N.B.—Other Exporters (See Introductory Note 5) : Kenya ; Tanganyika ; North Borneo.

(1) Black, Long, and White Pepper. Imports of Malaya were as follows :—

Year	*Quantity* (000 Cwts.)	*Value* (£000)
1938	160	174
1939	266	278
1946	375	2,722
1947	163	1,427
1948	118	1,642
1949	72	1,652

(2) Black and White Pepper.

TABLE 25 : PIMENTO

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies																	
Jamaica	1938	6,374	1,481	7,763	1,764	60,089	77,471	—	77,471	16,517	4,058	20,343	4,703	161,449	207,070	—	207,070
	1939	17,031	2,489	24,916	1,934	25,456	71,826	—	71,826	48,062	7,239	71,459	5,379	74,932	207,071	2	207,073
	1946	16,007	811	9,785	2,890	6,030	35,523	2	35,525	82,824	4,263	51,803	15,104	31,650	185,644	7	185,651
	1947	7,866	1,687	9,247	1,180	9,661	29,641	—	29,641	40,894	9,039	48,596	6,167	50,479	155,175	1	155,176
	1948	10,582	450	13,700	1,207	17,391 (1)	43,330	—	43,330	51,943	2,384	72,031	6,313	90,906 (1)	223,577	—	223,577
	1949	23,464	1,521	12,453	2,869	35,913	76,220	—	76,220	120,390	8,121	72,466	16,453	187,983	405,413	1	405,414

N.B.—Small exports from Kenya and Uganda and Tanganyika have been excluded.

(1) " Other countries " may include some " Inter-Colonial Trade."

B. SPICES AND CONDIMENTS

TABLE 26 : VANILLA

Colony, etc.	Year	Quantity (Cwts.) U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	Value (£) U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Indies																	
Dominica	1938	1	—	52	—	—	53	14	67	63	—	2,922	—	—	2,985	770	3,755
	1939	—	—	84	—	—	84	1	85	6	—	4,647	—	—	4,653	52	4,705
	1946	10	—	408	9	—	427	—	427	1,345	—	67,169	1,558	—	70,072	58	70,130
	1947	—	—	140	—	—	140	—	140	—	—	21,538	—	2	21,540	—	21,540
	1948	10	—	400	7	10	427	37	464	690	—	28,769	570	210	30,239	1,878	32,117
	1949	2	—	565	15	12	594	20	614	139	—	29,719	840	166	30,864	1,217	32,081
Atlantic and Indian Oceans ..																	
Seychelles	1938	42	—	—	—	—	42	—	42	1,470	—	—	—	—	1,470	—	1,470
	1939	19	—	—	—	—	19	—	19	877	—	—	—	—	877	—	877
	1946	..	..	..	..	..	..	..	89	..	..	..	..	..	..	..	12,750
	1947	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..	1,333
	1948	..	..	..	..	..	..	..	72	..	..	..	..	..	..	..	3,618
	1949	..	..	..	..	..	..	..	117	..	..	..	..	..	..	..	2,704

N.B.—Other Exporters (See Introductory Note 5) : Kenya and Uganda ; Leeward Islands ; St. Lucia ; Mauritius.

TABLE 27 : OTHER SPICES AND CONDIMENTS

Colony, etc.	Year	Quantity (Cwts.)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda (1) ..	1938	—	—	—	—	31	31	56	87	—	—	—	—	23	23	84	107
	1939	—	—	—	—	144	144	114	258	—	—	—	—	63	63	184	247
	1946	—	341	—	—	2,042	2,383	2,313	4,696	—	446	—	—	2,262	2,708	5,031	7,739
	1947	—	499	—	—	64	563	813	1,376	—	1,097	—	—	143	1,240	2,923	4,163
	1948	491	978	—	—	160	1,629	806	2,435	633	1,958	—	—	456	3,047	2,732	5,779
	1949	—	1,007	—	—	290	1,297	195	1,492	—	2,679	—	—	920	3,599	854	4,453
West Africa																	
Nigeria (2)	1938	—	—	—	—	9	9	175	184	—	—	—	—	4	4	157	161
	1939	283	—	—	—	271	554	81	635	246	—	—	—	612	858	86	944
	1946	621	—	24	—	—	645	4	649	2,196	—	126	—	1	2,323	17	2,340
	1947	—	—	—	—	15	15	713	728	—	—	—	—	105	105	1,159	1,264
	1948	—	—	—	—	1	1	3	4	—	—	—	—	1	1	27	28
	1949	890	86	102	—	349	1,427	2	1,429	6,690	912	1,151	—	2,675	11,428	10	11,438
Eastern																	
Hong Kong (3)	1938	..	..	..	..	..	..	..	..	280	3,739	24,930	2,006	42,292	73,247	15,652	88,899
	1939	..	..	..	..	..	..	..	..	159	2,403	45,802	1,648	44,514	94,526	13,896	108,422
	1949	72	691	196	1	2,031	2,991	3,064	6,055	5,380	27,610	9,257	35	72,218	114,500	212,191	326,691
Atlantic and Indian Oceans ..																	
Seychelles (4)	1938	1,110	—	—	—	—	1,110	—	1,110	247	—	—	—	—	247	—	247
	1939	..	..	..	..	..	..	..	4,560	..	..	..	..	..	..	..	1,459
	1946	..	..	..	..	..	..	..	15,760	..	..	..	..	..	..	..	27,931
	1947	..	..	..	..	..	..	..	5,220	..	..	..	..	..	..	..	5,325
	1948	..	..	..	..	..	..	..	2,340	..	..	..	..	..	..	..	1,932
	1949	..	..	..	..	..	..	..	1,180	..	..	..	..	..	..	..	633

N.B.—Other Exporters (See Introductory Note 5) :—

Tanganyika	(Other than Chillies, Peppers and Pimento)
Zanzibar Protectorate	(Other than Chillies, Cloves, and Mother of Cloves)
Gold Coast	(Other than Ginger and Peppers)
Sierra Leone	(Other than Chillies, Ginger and Peppers)
Jamaica	(Other than Ginger, Pimento, Mace and Nutmegs)
Trinidad and Tobago	(Other than Nutmegs and Mace)
Dominica	(Cinnamon)
Grenada	(Cinnamon)
St. Lucia	(Cinnamon)
St. Vincent	(Other than Mace, Nutmegs and Ginger)

Malaya has a substantial entrepôt trade in spices not previously covered by the foregoing tables of this section (i.e., spices other than Cloves, Ginger, Mace, Nutmegs and Peppers, but including Cubebs). The imports and exports were as follows :—

Year	Imports		Exports	
	Quantity (000 Cwts.)	Value (£000)	Quantity (000 Cwts.)	Value (£000)
1938	5	13	4	11
1939	5	13	4	12
1946	31	157	5	52
1947	10	38	4	16
1948	6	16	3	14
1949	3	15	3	17

(1) Spices other than Chillies, Peppers, Pimento and Vanilla.

(2) Other than Capsicums, Chillies, Ginger and Peppers.

(3) Condiments other than Ginger. Imports of Hong Kong were as follows :—

Year	Quantity (000 Cwts.)	Value (£000)
1938	..	56
1939	..	47
1949	9	303

Information relating to exports and imports is not available for the years 1946-1948.

(4) Cinnamon Bark.

C. OILSEEDS AND VEGETABLE OILS

TABLE 28: BENNISEED

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Nigeria (1)	1938	101	—	—	—	17,642	17,743	—	17,743	1,107	—	—	—	151,091	152,198	2	152,200
	1939	10,447	—	—	—	5,711	16,158	—	16,158	73,970	—	—	—	42,938	116,908	—	116,908
	1946	7,334	—	—	—	—	7,334	—	7,334	76,993	—	—	—	—	76,993	—	76,993
	1947	3,592	2,106	—	—	—	5,698	—	5,698	89,800	52,650	—	—	—	142,450	—	142,450
	1948	7,542	—	—	—	—	7,542	—	7,542	301,680	—	—	—	—	301,680	—	301,680
	1949	19,385	—	—	—	—	19,385	—	19,385	969,250	—	—	—	—	969,250	—	969,250
Sierra Leone (2)	1938	25	—	—	—	349	374	—	374	200	—	—	—	3,498	3,698	2	3,700
	1939	11	—	—	—	201	212	—	212	115	—	—	—	1,930	2,045	—	2,045
	1946	127	—	—	—	—	127	—	127	1,946	—	—	—	—	1,946	3	1,949
	1947	2	—	—	—	—	2	1	3	38	—	—	—	—	38	17	55
	1948	349	—	—	—	—	349	1	350	11,516	—	—	—	—	11,516	22	11,538
	1949	287	—	—	—	—	287	—	287	10,724	—	—	—	1	10,725	3	10,728
Totals	1938	126	—	—	—	17,991	18,117	—	18,117	1,307	—	—	—	154,589	155,896	4	155,900
	1939	10,458	—	—	—	5,912	16,370	—	16,370	74,085	—	—	—	44,868	118,953	—	118,953
	1946	7,461	—	—	—	—	7,461	—	7,461	78,939	—	—	—	—	78,939	3	78,942
	1947	3,594	2,106	—	—	—	5,700	1	5,701	89,838	52,650	—	—	—	142,488	17	142,505
	1948	7,891	—	—	—	—	7,891	1	7,892	313,196	—	—	—	—	313,196	22	313,218
	1949	19,672	—	—	—	—	19,672	—	19,672	979,974	—	—	—	1	979,975	3	979,978

(1) Figures for 1947, 1948 and 1949 adjusted for under-valuation (See first paragraph of footnote (1) Table 9).

(2) It is estimated that the total value of Sierra Leone's benniseed exports should be increased by some £1,000 and £4,000 in 1948 and 1949 respectively (See first paragraph of footnote (1) Table 9).

TABLE 29: CASTOR SEED

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda (1) ..	1946	157	—	—	—	—	157	—	157	3,626	—	—	—	—	3,626	—	3,626
	1947	85	—	—	—	—	85	—	85	2,351	—	—	—	—	2,351	—	2,351
	1948	307	—	—	—	—	307	—	307	9,369	—	—	—	—	9,369	1	9,370
	1949	10	644	155	—	95	904	—	904	309	21,971	4,844	—	3,231	30,355	—	30,355
Tanganyika (2)	1948	2,468	—	—	—	—	2,468	—	2,468	71,374	—	—	—	—	71,374	—	71,374
	1949	41	786	72	—	754	1,653	—	1,653	1,252	26,951	2,216	—	23,244	53,663	—	53,663

N.B.—Small exports from Nyasaland Protectorate have been excluded (See Introductory Note 5).

(1) Not separately enumerated in 1938 and 1939. See Table 44.

(2) Not separately enumerated in 1938, 1939, 1946 and 1947. See Table 44.

C. OILSEEDS AND VEGETABLE OILS

TABLE 30 : CASTOR SEED OIL

Colony, etc.	Year	Quantity (Tons) U.K.	Quantity (Tons) Other Parts of Sterling Area	Quantity (Tons) U.S.A., etc., and the Philippines	Quantity (Tons) Canada and Newfoundland	Quantity (Tons) Other Countries	Quantity (Tons) Total excluding Inter-Colonial Trade	Quantity (Tons) Inter-Colonial Trade	Quantity (Tons) Total Domestic Exports	Value (£) U.K.	Value (£) Other Parts of Sterling Area	Value (£) U.S.A., etc., and the Philippines	Value (£) Canada and Newfoundland	Value (£) Other Countries	Value (£) Total excluding Inter-Colonial Trade	Value (£) Inter-Colonial Trade	Value (£) Total Domestic Exports
Eastern																	
Federation of Malaya and Singapore (1)	1938	—	—	—	—	1	1	1	2	—	—	—	—	24	24	47	71
	1939	—	—	—	—	1	1	2	3	—	9	—	—	27	36	97	133
	1946	96	—	200	—	—	296	7	303	6,408	—	27,067	—	—	33,475	755	34,230
	1947	15	4	80	—	—	99	105	204	1,540	350	13,708	—	62	15,660	7,507	23,167
	1948	—	13	—	—	1	14	10	24	—	1,292	—	—	131	1,423	956	2,379
	1949	—	—	—	—	—	—	—	—	—	—	—	—	8	8	56	64

N.B.—Small exports from Kenya, Uganda and Tanganyika have been excluded (See Introductory Note 5).

(1) Imports of Malaya were as follows :—

Year	Quantity (Tons)	Value (£)
1938	117	4,607
1939	126	4,568
1946	4	424
1947	44	5,027
1948	16	2,942
1949	48	6,763

Colony, etc.	Year	Quantity (Number)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A. etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa																	
Nigeria	1938	—	—	—	—	1,004	1,004	2,918	3,922	—	—	—	—	7	7	14	21
	1939	20,991	—	—	—	16,119	37,110	5,372	42,482	23	—	—	—	53	76	19	95
	1946	15	—	—	—	2,551	2,566	—	2,566	—	—	—	—	12	12	—	12
	1947	11	—	—	—	5,104	5,115	125	5,240	1	—	—	—	20	21	5	26
	1948	11,743	—	—	—	113	11,856	—	11,856	61	—	—	—	1	62	—	62
	1949	1,333,361	—	4	—	103	1,333,468	500	1,333,968	15,999	—	—	—	2	16,001	11	16,012
Eastern																	
Federation of Malaya and Singapore (1)	1938	10	10,148,400	—	—	1,331,234	11,479,644	210,650	11,690,294	—	24,020	—	—	3,172	27,192	500	27,692
	1939	—	9,345,650	—	—	167,414	9,513,064	220,400	9,733,464	—	20,410	—	—	399	20,809	558	21,367
	1946	—	567,126	—	—	45,900	613,026	395,700	1,008,726	—	6,081	—	—	271	6,352	4,130	10,482
	1947	200	5,717,600	—	—	211,200	5,929,000	463,500	6,392,500	2	76,221	—	—	2,840	79,063	4,690	83,753
	1948	100	4,222,960	—	—	53,200	4,276,260	378,760	4,655,020	3	73,276	—	—	1,057	74,336	6,459	80,795
	1949	—	2,151,440	—	—	41,080	2,192,520	165,000	2,357,520	—	36,526	—	—	779	37,305	2,786	40,091
North Borneo ..	1938	..	..	..	..	..	..	..	712,992	..	..	..	..	..	..	..	1,691
	1939	..	..	..	..	..	..	..	1,109,643	..	..	..	..	..	..	..	2,590
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	438,700	..	..	..	..	..	..	..	4,699
	1949	..	..	..	..	..	..	..	1,308,200	..	..	..	..	..	..	..	12,735
West Indies																	
British Honduras ..	1938	—	—	4,726,740	52,550	—	4,779,290	—	4,779,290	—	—	12,250	108	—	12,358	—	12,358
	1939	1,000	—	2,817,800	—	7,500	2,826,300	20,250	2,846,550	2	—	8,645	—	10	8,657	45	8,702
	1946	—	—	2,632,239	—	—	2,632,239	—	2,632,239	—	—	49,590	—	—	49,590	—	49,590
	1947	—	—	3,184,195	—	—	3,184,195	—	3,184,195	—	—	37,392	—	—	37,392	—	37,392
	1948	—	—	2,525,300	352,500	—	2,877,800	50,000	2,927,800	—	—	31,022	6,244	—	37,266	1,054	38,320
	1949	—	—	1,540,504	266,500	—	1,807,004	—	1,807,004	—	—	16,112	4,389	—	20,501	—	20,501
Jamaica	1938	3,192,854	—	18,601,095	11,529,650	81,500	33,405,099	10,280	33,415,379	8,291	—	48,963	26,663	199	84,116	39	84,155
	1939	2,597,350	—	15,404,610	13,335,382	48,000	31,385,342	20,795	31,406,137	6,826	—	38,895	29,132	87	74,940	58	74,998
	1946	—	—	—	—	—	—	3,900	3,900	—	—	—	—	—	—	30	30
	1947	—	—	2	180	250	432	10,275	10,707	—	—	—	1	2	3	88	91
	1948	—	—	—	—	—	—	19,500	19,500	—	—	—	—	—	—	197	197
	1949	1,030	—	100	100	—	1,230	20,580	21,810	10	—	—	1	—	11	220	231
Totals	1938	3,192,854	—	23,327,835	11,582,200	81,500	38,184,389	10,280	38,194,669	8,291	—	61,213	26,771	199	96,474	39	96,513
	1939	2,598,350	—	18,222,410	13,335,382	55,500	34,211,642	41,045	34,252,687	6,828	—	47,540	29,132	97	83,597	103	83,700
	1946	—	—	2,632,239	—	—	2,632,239	3,900	2,636,139	—	—	49,590	—	—	49,590	30	49,620
	1947	—	—	3,184,197	180	250	3,184,627	10,275	3,194,902	—	—	37,392	1	2	37,395	88	37,483
	1948	—	—	2,525,300	352,500	—	2,877,800	69,500	2,947,300	—	—	31,022	6,244	—	37,266	1,251	38,517
	1949	1,030	—	1,540,604	266,600	—	1,808,234	20,580	1,828,814	10	—	16,112	4,390	—	20,512	220	20,732
Grand Totals (Excluding North Borneo)	1938	3,192,864	10,148,400	23,327,835	11,582,200	1,413,738	49,665,037	223,848	49,888,885	8,291	24,020	61,213	26,771	3,378	123,673	553	124,226
	1939	2,619,341	9,345,650	18,222,410	13,335,382	239,033	43,761,816	266,817	44,028,633	6,851	20,410	47,540	29,132	549	104,482	680	105,162
	1946	15	567,126	2,632,239	—	48,451	3,247,831	399,600	3,647,431	—	6,081	49,590	—	283	55,954	4,160	60,114
	1947	211	5,717,600	3,184,197	180	216,554	9,118,742	473,900	9,592,642	3	76,221	37,392	1	2,862	116,479	4,783	121,262
	1948	11,843	4,222,960	2,525,300	352,500	53,313	7,165,916	448,260	7,614,176	64	73,276	31,022	6,244	1,058	111,664	7,710	119,374
	1949	1,334,391	2,151,440	1,540,608	266,600	41,183	5,334,222	186,080	5,520,302	16,009	36,526	16,112	4,390	781	73,818	3,017	76,835

N.B.—Other Exporters (See Introductory Note 5) : Kenya ; Tanganyika ; Zanzibar Protectorate ; Gold Coast ; Sierra Leone ; Sarawak ; British Guiana ; Trinidad and Tobago ; Windward Islands ; Fiji ; New Hebrides ; Tonga.

(1) Imports of Malaya were as follows :—

Year	Quantity (Number)	Value £
1938	16,020	28
1939	5,910	11
1946	592,000	3,576
1947	105,200	678
1948	166,220	1,897
1949	160,452	1,644

C. OILSEEDS AND VEGETABLE OILS

TABLE 31 : COCONUTS (Fresh) and COPRA—(*b*) COPRA

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Tanganyika	1938	39	—	—	—	1,612	1,651	2,353	4,004	296	1	—	—	12,797	13,094	18,996	32,090
	1939	375	22	—	—	3,959	4,356	2,022	6,378	3,026	217	—	—	31,188	34,431	16,026	50,457
	1946	—	—	—	—	—	—	312	312	—	—	—	—	—	—	6,371	6,371
	1947	—	40	—	—	—	40	—	40	—	700	—	—	—	700	—	700
	1948	—	—	—	—	—	—	48	48	—	—	—	—	—	—	1,472	1,472
	1949	3,461	—	—	—	—	3,461	124	3,585	158,280	—	—	—	—	158,280	6,033	164,313
Zanzibar Protectorate . .	1938	49	22	—	—	11,626	11,697	—	11,697	498	175	—	—	96,777	97,450	—	97,450
	1939	541	199	—	—	9,782	10,522	22	10,544	4,201	1,789	—	—	73,670	79,660	172	79,832
	1946	—	—	—	—	3,466	3,466	4,569	8,035	—	—	—	—	91,491	91,491	112,622	204,113
	1947	—	546	—	—	2,182	2,728	5,095	7,823	—	16,368	—	—	65,446	81,814	152,861	234,675
	1948	—	—	—	—	—	—	702	702	—	—	—	—	—	—	27,242	27,242
	1949	5,400	—	—	—	—	5,400	2,522	7,922	290,795	—	—	—	—	290,795	134,143	424,938
Totals	1938	88	22	—	—	13,238	13,348	2,353	15,701	794	176	—	—	109,574	110,544	18,996	129,540
	1939	916	221	—	—	13,741	14,878	2,044	16,922	7,227	2,006	—	—	104,858	114,091	16,198	130,289
	1946	—	—	—	—	3,466	3,466	4,881	8,347	—	—	—	—	91,491	91,491	118,993	210,484
	1947	—	586	—	—	2,182	2,768	5,095	7,863	—	17,068	—	—	65,446	82,514	152,861	235,375
	1948	—	—	—	—	—	—	750	750	—	—	—	—	—	—	28,714	28,714
	1949	8,861	—	—	—	—	8,861	2,646	11,507	449,075	—	—	—	—	449,075	140,176	589,251
West Africa																	
Gold Coast	1938	280	—	—	—	648	928	65	993	2,863	—	—	—	5,739	8,602	584	9,186
	1939	688	—	—	—	81	769	71	840	5,183	—	—	—	693	5,876	470	6,346
	1946	397	—	—	—	—	397	—	397	6,175	—	—	—	—	6,175	—	6,175
	1947	309	—	—	—	—	309	—	309	5,379	—	—	—	—	5,379	—	5,379
	1948	350	—	—	—	—	350	—	350	11,315	—	—	—	—	11,315	—	11,315
	1949	497	—	—	—	38	535	—	535	17,400	—	—	—	891	18,291	—	18,291
Nigeria	1938	48	—	—	—	134	182	—	182	316	—	—	—	911	1,227	—	1,227
	1939	10	—	—	—	76	86	—	86	79	—	—	—	592	671	—	671
	1946	84	—	—	—	—	84	—	84	1,168	—	—	—	—	1,168	—	1,168
	1947	148	—	—	—	—	148	—	148	3,455	—	—	—	—	3,455	—	3,455
	1948	560	—	—	—	—	560	—	560	15,743	—	—	—	—	15,743	—	15,743
	1949	871	—	—	—	—	871	—	871	33,599	—	—	—	—	33,599	—	33,599
Totals	1938	328	—	—	—	782	1,110	65	1,175	3,179	—	—	—	6,650	9,829	584	10,413
	1939	698	—	—	—	157	855	71	926	5,262	—	—	—	1,285	6,547	470	7,017
	1946	481	—	—	—	—	481	—	481	7,343	—	—	—	—	7,343	—	7,343
	1947	457	—	—	—	—	457	—	457	8,834	—	—	—	—	8,834	—	8,834
	1948	910	—	—	—	—	910	—	910	27,058	—	—	—	—	27,058	—	27,058
	1949	1,368	—	—	—	38	1,406	—	1,406	50,999	—	—	—	891	51,890	—	51,890
Eastern (1)																	
Federation of Malaya and Singapore	1938	41,205	210	—	—	144,856	186,271	—	186,271	321,200	1,642	—	—	1,134,770	1,457,612	—	1,457,612
	1939	64,214	1,723	—	—	91,493	157,430	—	157,430	499,659	14,812	—	—	706,777	1,221,248	—	1,221,248
	1946	1,566	—	—	—	177	1,743	54	1,797	56,827	—	—	—	7,111	63,938	1,459	65,397
	1947	6,120	48	—	—	—	6,168	998	7,166	214,940	1,701	—	—	—	216,641	41,010	257,651
	1948	2,081	2,932	—	—	54,001	59,014	28	59,042	116,260	202,023	—	—	4,275,881	4,594,164	2,335	4,596,499
	1949	5,095	2,099	—	—	82,125	89,319	6	89,325	275,976	129,325	—	—	5,163,350	5,568,651	427	5,569,078
West Indies																	
British Guiana (2)	1938	695	—	—	—	—	695	—	695	8,669	—	—	—	—	8,669	—	8,669
	1939	507	—	—	—	—	507	—	507	4,671	—	—	—	—	4,671	—	4,671
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	75	75	—	75	—	—	—	—	3,850	3,850	—	3,850

West Indies—(*continued*)																	
Dominica	1938	107	—	—	—	—	107	—	107	1,042	—	—	—	—	1,042	—	1,042
	1939	151	—	—	—	—	151	72	223	1,227	—	—	—	—	1,227	764	1,991
	1946	—	—	—	—	—	—	299	299	—	—	—	—	—	—	11,901	11,901
	1947	—	—	—	—	—	—	273	273	—	—	—	—	—	—	11,729	11,729
	1948	—	—	—	—	—	—	300	300	—	—	—	—	—	—	12,792	12,792
	1949	—	—	—	—	—	—	528	528	—	—	—	—	—	—	23,206	23,206
Grenada	1938	1	—	—	—	—	1	170	171	11	—	—	—	—	11	1,492	1,503
	1939	2	—	—	—	—	2	328	330	18	—	—	—	—	18	3,061	3,079
	1946	—	—	—	—	—	—	155	155	—	—	—	—	—	—	5,460	5,460
	1947	—	—	—	—	—	—	324	324	—	—	—	—	—	—	12,267	12,267
	1948	—	—	—	—	—	—	189	189	—	—	—	—	—	—	8,142	8,142
	1949	—	—	—	—	—	—	26	26	—	—	—	—	—	—	1,095	1,095
St. Lucia	1938	54	—	—	—	—	54	252	306	352	—	—	—	—	352	2,554	2,906
	1939	40	—	—	—	24	64	514	578	350	—	—	—	264	614	4,560	5,174
	1946	..	..	..	..	..	..	..	1,746	..	..	..	..	..	..	..	59,525
	1947	..	..	..	..	..	..	..	1,475	..	..	..	..	..	..	..	50,265
	1948	..	..	..	..	..	..	..	1,012	..	..	..	..	..	..	..	41,536
	1949	—	—	—	—	—	—	1,159	1,159	—	—	—	—	—	—	50,599	50,599
St. Vincent	1938	197	—	—	—	—	197	546	743	2,256	—	—	—	—	2,256	6,046	8,302
	1939	200	—	—	—	—	200	604	804	2,070	—	—	—	—	2,070	5,986	8,056
	1946	—	—	—	—	—	—	1,369	1,369	—	—	—	—	—	—	47,943	47,943
	1947	—	—	—	—	—	—	1,185	1,185	—	—	—	—	—	—	45,539	45,539
	1948	—	—	—	—	—	—	1,481	1,481	—	—	—	—	—	—	62,943	62,943
	1949	—	—	—	—	—	—	1,332	1,332	—	—	—	—	—	—	89,499	89,499
Jamaica (3)	1938	198	—	—	—	546	744	—	744	2,000	—	—	—	8,647	10,647	—	10,647
	1939	—	—	—	—	791	791	—	791	—	—	—	—	8,497	8,497	—	8,497
Trinidad and Tobago (3) ..	1938	2,106	—	—	—	2,085	4,191	—	4,191	16,910	—	—	—	23,553	40,463	—	40,463
	1939	2,604	—	—	—	2,954	5,558	30	5,588	17,699	—	—	—	21,580	39,279	217	39,496
Totals (Excluding St. Lucia)	1938	3,304	—	—	—	2,631	5,935	716	6,651	30,888	—	—	—	32,200	63,088	7,538	70,626
	1939	3,464	—	—	—	3,745	7,209	1,034	8,243	25,685	—	—	—	30,077	55,762	10,028	65,790
	1946	—	—	—	—	—	—	1,823	1,823	—	—	—	—	—	—	65,304	65,304
	1947	—	—	—	—	75	75	1,782	1,857	—	—	—	—	3,850	3,850	69,535	73,385
	1948	—	—	—	—	—	—	1,970	1,970	—	—	—	—	—	—	83,877	83,877
	1949	—	—	—	—	—	—	1,886	1,886	—	—	—	—	—	—	113,800	113,800
Western Pacific																	
Fiji	1938	6,071	4,913	7,950	—	14,541	33,475	—	33,475	41,585	34,399	57,123	—	110,961	244,068	—	244,068
	1939	5,574	5,099	1,762	—	14,926	27,361	—	27,361	38,792	33,903	13,062	—	98,287	184,044	—	184,044
	1946	10,510	—	5,062	730	—	16,302	—	16,302	236,160	—	92,572	13,394	—	342,126	—	342,126
	1947	27,490	—	—	—	—	27,490	—	27,490	870,492	—	—	—	—	870,492	—	870,492
	1948	21,352	—	—	—	—	21,352	—	21,352	893,905	—	—	—	—	893,905	—	893,905
	1949	13,932	—	—	—	—	13,932	—	13,932	657,606	—	—	—	—	657,606	—	657,606
Gilbert and Ellice Islands (4)	1938	510	—	2,439	—	1,901	4,850	—	4,850	5,304	—	20,432	—	17,710	43,446	—	43,446
	1939	5,450	—	1,200	—	2,211	8,861	—	8,861	34,935	—	7,976	—	13,663	56,574	—	56,574
	1946	..	..	..	..	..	..	..	2,997	..	..	..	..	..	..	..	68,127
	1947	..	..	..	..	..	..	..	6,634	..	..	..	..	..	..	..	163,149
	1948	..	..	..	..	..	..	..	4,007	..	..	..	..	..	..	..	118,926
	1949	..	..	..	..	..	..	..	7,474	..	..	..	..	..	..	..	406,752
New Hebrides	1938	—	54	—	—	11,213	11,267	—	11,267	—	362	—	—	74,559	74,921	—	74,921
	1939	—	—	—	—	14,339	14,339	—	14,339	—	—	—	—	79,906	79,906	—	79,906
	1946	—	—	—	—	..	..	—	..	—	—	—	—	..	..	—	..
	1947	—	—	—	—	20,083	20,083	—	20,083	—	—	—	—	865,602	865,602	—	865,602
	1948	—	—	—	—	21,203	21,203	—	21,203	—	—	—	—	1,397,172	1,397,172	—	1,397,172
	1949	—	—	—	..	..	22,073	—	22,073	—	—	—	78,900	956,100	1,035,000	—	1,035,000

C. OILSEEDS AND VEGETABLE OILS

TABLE 31: COCONUTS (FRESH) AND COPRA—(*b*) COPRA—(*continued*)

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Western Pacific—(*continued*)																	
British Solomon Islands(5)	1938	—	14,430	—	—	7,652	22,082	473	22,555	—	56,332	—	—	33,346	89,678	1,710	91,388
	1939	—	12,497	956	—	7,749	21,202	742	21,944	—	72,129	6,229	—	37,733	116,091	3,403	119,494
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	..	..	..	..	..	..	..	494	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	3,165	..	..	..	..	..	..	..	..
	1949	..	..	..	..	..	..	..	8,390	..	..	..	..	..	..	..	402,720
Tonga	1938	—	—	—	—	12,428	12,428	—	12,428	—	—	—	—	63,839	63,839	—	63,839
	1939	—	—	—	—	10,500	10,500	—	10,500	—	—	—	—	51,636	51,636	—	51,636
	1946	2,989	—	—	4,561	—	7,550	—	7,550	54,649	—	—	83,391	—	138,040	—	138,040
	1947	18,967	—	—	—	—	18,967	—	18,967	558,594	—	—	—	—	558,594	—	558,594
	1948	14,964	—	—	—	—	14,964	—	14,964	623,571	—	—	—	—	623,571	—	623,571
	1949	13,786	—	—	—	—	13,786	—	13,786	651,259	—	—	—	—	651,259	—	651,259
Totals	1938	6,581	19,397	10,389	—	47,735	84,102	473	84,575	46,889	91,093	77,555	—	300,415	515,952	1,710	517,662
	1939	11,024	17,596	3,918	—	49,725	82,263	742	83,005	73,727	106,032	27,267	—	281,225	488,251	3,403	491,654
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	73,668	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	64,691	..	..	..	..	..	..	..	..
	1949	..	..	..	..	..	..	..	65,655	..	..	..	..	..	..	..	3,153,337
Atlantic and Indian Oceans																	
Mauritius(3)	1938	1,457	—	—	—	—	1,457	—	1,457	16,032	—	—	—	—	16,032	—	16,032
	1939	1,572	48	—	—	—	1,620	—	1,620	13,911	574	—	—	—	14,485	—	14,485
Seychelles	1938	2,170	2,384	—	—	127	4,681	—	4,681	16,427	17,117	—	—	952	34,496	—	34,496
	1939	954	4,061	—	—	—	5,015	60	5,075	7,127	41,721	—	—	—	48,848	487	49,335
	1946	..	..	..	..	..	..	..	6,110	..	..	..	..	..	..	..	172,058
	1947	..	..	..	..	..	..	..	4,862	..	..	..	..	..	..	..	196,932
	1948	..	..	..	..	..	..	..	7,591	..	..	..	..	..	..	..	307,428
	1949	..	..	..	..	..	..	..	6,187	..	..	..	..	..	..	..	324,790
Totals	1938	3,627	2,384	—	—	127	6,138	—	6,138	32,459	17,117	—	—	952	50,528	—	50,528
	1939	2,526	4,109	—	—	—	6,635	60	6,695	21,038	42,295	—	—	—	63,333	487	63,820
	1946	..	..	..	..	..	..	..	6,110	..	..	..	..	..	..	..	172,058
	1947	..	..	..	..	..	..	..	4,862	..	..	..	..	..	..	..	196,932
	1948	..	..	..	..	..	..	..	7,591	..	..	..	..	..	..	..	307,428
	1949	..	..	..	..	..	..	..	6,187	..	..	..	..	..	..	..	324,790
Grand Totals (Excluding St. Lucia, Gilbert and Ellice Islands, New Hebrides, Br. Solomon Islands and Seychelles)	1938	52,453	5,145	7,950	—	188,476	254,024	3,134	257,158	413,678	36,217	57,123	—	1,457,994	1,965,012	27,118	1,992,130
	1939	76,438	7,091	1,762	—	134,562	219,853	3,149	223,002	590,536	51,295	13,062	—	992,920	1,647,813	26,696	1,674,509
	1946	15,546	—	5,062	5,291	3,643	29,542	6,758	36,300	354,979	—	92,572	96,785	98,602	642,938	185,756	828,694
	1947	53,034	634	—	—	2,257	55,925	7,875	63,800	1,652,860	18,769	—	—	69,296	1,740,925	263,406	2,004,331
	1948	39,307	2,932	—	—	54,001	96,240	2,748	98,988	1,660,794	202,023	—	—	4,275,881	6,138,698	114,926	6,253,624
	1949	43,042	2,099	—	—	82,163	127,304	4,538	131,842	2,084,915	129,325	—	—	5,164,241	7,378,481	254,403	7,632,884

TABLE 31: COCONUTS (Fresh) and COPRA—(*b*) COPRA—(*continued*)

N.B.—Other Exporters (See Introductory Note 5) : Kenya and Uganda ; Nyasaland ; Sierra Leone ; British Honduras ; Leeward Islands.

(1) The exports of North Borneo and Sarawak have been excluded as they are to a large extent included in the Malayan figures shown below :—

Year	*Exports from :*			*Imports into Federation of Malaya and Singapore from :*				
	North Borneo	*Sarawak*	*Totals*	*North Borneo*	*Sarawak*	*Total*	*Others*	*Totals*
			Quantity (tons)					
1938	8,951	3,615	12,566	7,027	3,807	10,834	106,683	117,517
1939	9,138	3,567	12,705	6,636	3,986	10,622	112,387	123,009
1946	..	18	..	363	36	399	35,611	36,010
1947	..	168	..	371	212	583	52,022	52,605
1948	4,012	1,719	5,731	3,622	1,832	5,454	82,212	87,666
1949	19,011	3,418	22,429	17,927	3,152	21,079	92,670	113,749
			Value (£)					
1938	47,464	17,422	64,886	50,699	25,270	75,969	720,304	796,273
1939	41,932	19,083	61,015	46,840	25,811	72,651	761,098	833,749
1946	..	393	..	10,073	960	11,033	956,430	967,463
1947	58,333	5,886	64,219	13,792	7,794	21,586	1,955,068	1,976,654
1948	200,460	121,381	321,841	260,271	128,298	388,569	5,843,381	6,231,950
1949	881,814	195,615	1,077,429	1,058,081	190,348	1,248,429	5,155,871	6,404,300

(2) Not separately enumerated in 1948 and 1949.

(3) There were no exports in 1946–9.

(4) 1938 figures—July, 1937 to June, 1938 inclusive.
1939 figures—July, 1938 to June, 1939 inclusive.

(5) 1938 figures—April, 1938 to March, 1939 inclusive.
1939 figures—April, 1939 to March, 1940 inclusive.

C. OILSEEDS AND VEGETABLE OILS

TABLE 32 : COCONUT OIL

		Quantity (Tons)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Tanganyika	1938	—	2	—	—	2	4	811	815	—	24	—	—	39	63	13,585	13,648
	1939	—	194	—	—	—	194	780	974	—	2,528	—	—	12	2,540	11,305	13,845
	1946	—	—	—	—	1	1	931	932	—	—	—	—	62	62	48,912	48,974
	1947	—	—	—	—	40	40	860	900	—	—	—	—	2,808	2,808	62,331	65,139
	1948	—	—	—	—	482	482	982	1,464	—	—	—	—	52,601	52,601	67,930	120,531
	1949	60	—	—	—	118	178	558	736	5,069	—	—	—	9,755	14,824	35,408	50,232
Zanzibar Protectorate ..	1938	—	81	—	—	32	113	31	144	—	1,444	—	—	589	2,033	350	2,383
	1939	—	206	—	—	101	307	44	351	—	3,066	—	—	1,333	4,399	632	5,031
	1946	—	—	—	—	1	1	603	604	—	2	—	—	58	60	26,162	26,222
	1947	—	95	—	—	102	197	873	1.070	—	4,754	—	—	5,112	9,866	43,801	53,667
	1948	—	20	—	—	238	258	2,902	3,160	—	1,154	—	—	13,104	14,258	161,495	175,753
	1949	4,956	19	—	—	50	5,025	1,515	6,540	441,034	1,612	—	—	4,597	447,243	134,796	582,039
Totals	1938	—	83	—	—	34	117	842	959	—	1,468	—	—	628	2,096	13,935	16,031
	1939	—	400	—	—	101	501	824	1,325	—	5,594	—	—	1,345	6,939	11,937	18,876
	1946	—	—	—	—	2	2	1,534	1,536	—	2	—	—	120	122	75,074	75,196
	1947	—	95	—	—	142	237	1,733	1,970	—	4,754	—	—	7,920	12,674	106,132	118,806
	1948	—	20	—	—	720	740	3,884	4,624	—	1,154	—	—	65,705	66,859	229,425	296,284
	1949	5,016	19	—	—	168	5,203	2,073	7,276	446,103	1,612	—	—	14,352	462,067	170,204	632,271
Mediterranean																	
Cyprus (1)	1948	—	—	—	—	48	48	—	48	—	—	—	—	8,417	8,417	—	8,417
	1949	—	—	—	—	51	51	—	51	—	—	—	—	6,768	6,768	—	6,768
Eastern																	
Federation of Malaya and Singapore (2)	1938	12,899	22,878	—	500	11,485	47,762	1,740	49,502	180,772	283,650	—	6,014	163,412	633,848	25,003	658,851
	1939	12,336	32,192	—	1,400	12,912	58,840	3,058	61,898	170,874	414,838	—	20,461	187,877	794,050	49,018	843,068
	1946	1,124	1,449	—	—	4,679	7,252	1,878	9,130	61,510	81,766	—	—	328,995	472,271	142,441	614,712
	1947	27,239	6,807	—	—	3,242	37,288	5,969	43,257	1,835,533	478,589	—	—	253,184	2,567,306	453,684	3,020,990
	1948	3,334	8,070	516	—	27,657	39,577	8,699	48,276	240,360	1,724,450	51,062	—	2,594,889	4,610,761	1,054,468	5,665,229
	1949	—	32,304	—	—	23,700	56,004	5,222	61,226	5	3,383,479	—	—	2,479,379	5,862,863	553,066	6,415,929
North Borneo..	1938	..	..	..	..	..	..	..	185	..	..	..	..	..	..	..	2,898
	1939	..	..	..	..	..	..	..	279	..	..	..	..	..	..	..	4,375
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	..	..	..	..	..	..	..	739	..	..	..	..	..	..	..	60,000(5)
	1948	..	..	..	..	..	..	..	900	..	..	..	..	..	..	..	76,500
	1949	..	..	..	..	..	..	..	359	..	..	..	..	..	..	..	30,414
West Indies																	
Trinidad and Tobago ..	1938	—	—	—	—	68	68	20	88	—	—	—	—	1,396	1,396	394	1,790
	1939	—	—	—	—	37	37	23	60	—	—	—	—	1,109	1,109	478	1,587
	1946	—	—	—	—	—	—	2,458	2,458	—	—	—	—	—	—	172,291	172,291
	1947	—	—	—	—	—	—	2,195	2,195	—	—	—	—	—	—	164,380	164,380
	1948	—	—	—	—	—	—	139	139	—	—	—	—	—	—	11,810	11,810
	1949	—	—	—	—	—	—	531	531	—	—	—	—	6	6	43,751	43,757
St. Lucia(3) (4)	1947	..	..	..	..	..	..	..	90	..	..	..	..	..	..	..	7,116
	1948	..	..	..	..	..	..	..	225	..	..	..	..	..	..	..	5,711
	1949	—	—	—	—	—	—	165	165	—	—	—	—	—	—	13,973	13,973

Western Pacific																	
Fiji	1938	—	152	—	—	—	152	—	152	—	2,877	—	—	—	2,877	—	2,877
	1939	—	198	—	—	—	198	—	198	—	2,476	—	—	—	2,476	—	2,476
	1946	1,477	20	310	—	—	1,807	—	1,807	54,543	742	11,443	—	—	66,728	—	66,728
	1947	6,570	—	—	—	—	6,570	—	6,570	396,556	11	—	—	—	396,567	—	396,567
	1948	9,053	—	—	—	—	9,053	—	9,053	685,382	—	—	—	—	685,382	—	685,382
	1949	10,290	—	—	—	—	10,290	1	10,291	825,077	—	—	—	—	825,077	193	825,270
Grand Totals .. .. (Excluding N. Borneo and St. Lucia)	1938	12,899	23,113	—	500	11,587	48,099	2,602	50,701	180,772	287,995	—	6,014	165,436	640,217	39,332	679,549
	1939	12,336	32,790	—	1,400	13,050	59,576	3,905	63,481	170,874	422,908	—	20,461	190,331	804,574	61,433	866,007
	1946	2,601	1,469	310	—	4,681	9,061	5,870	14,931	116,053	82,510	11,443	—	329,115	539,121	389,806	928,927
	1947	33,809	6,902	—	—	3,384	44,095	9,897	53,992	2,232,089	483,354	—	—	261,104	2,976,547	724,196	3,700,743
	1948	12,387	8,090	516	—	28,425	49,418	12,722	62,140	925,742	1,725,604	51,062	—	2,669,011	5,371,419	1,295,703	6,667,122
	1949	15,306	32,323	—	—	23,919	71,548	7,827	79,375	1,271,185	3,385,091	—	—	2,500,505	7,156,781	767,214	7,923,995

N.B.—Other Exporters (See Introductory Note 5) : **Kenya ; Uganda ; Sarawak ; Barbados ; British Guiana ; Jamaica ; St. Vincent ; Tonga ; Mauritius ;** Seychelles.

(1) There were no exports in 1938, 1939, 1946 and 1947.

(2) Imports of Malaya were as follows :—

Year	*Quantity* (*Tons*)	*Value* (£)
1938	363	6,124
1939	538	10,777
1946	1,122	68,313
1947	2,145	142,964
1948	3,031	353,258
1949	722	55,110

(3) There were no exports in 1938, 1939 and 1946.

(4) Converted from gallons at 1 gallon=9.2 lbs.

(5) Estimated Value.

C. OILSEEDS AND VEGETABLE OILS

TABLE 33 : COTTON SEED

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa :																	
Kenya and Uganda ..	1938	120,501	2,457	—	—	5	122,963	—	122.963	301,336	6,143	—	—	6	307,485	—	307,485
	1939	79,657	4,010	—	—	850	84,517	1,024(1)	85,541	201,192	12,023	—	—	2,125	215,340	2,524	217,864
	1946	22,802	10	—	—	—	22,812	60(1)	22,872	105,110	100	—	—	—	105.210	164	105,374
	1947	10,153	—	—	—	—	10,153	—	10,153	65,101	—	—	—	—	65,101	—	65,101
	1948	789	—	—	—	—	789	—	789	11,327	—	—	—	—	11,327	—	11,327
	1949	58,867	1	—	—	—	58,868	103	58,971	1,163,364	18	—	—	—	1,163,382	1,094	1,164,476
Tanganyika	1938	7,050	6	—	—	90	7,146	1,675(1)	8,821	17,208	11	—	—	366	17,585	2,009	19,594
	1939	4,511	—	—	—	—	4,511	2,652(1)	7,163	10,784	—	—	—	2	10,786	2,920	13,706
	1946	5,437	—	—	—	—	5,437	41(1)	5,478	22,151	—	—	—	—	22,151	168	22,319
	1947	4,064	—	—	—	—	4,064	1,600(1)	5,664	17,273	—	—	—	—	17,273	5,115	22,388
	1948	191	—	—	—	—	191	4,700(1)	4,891	1,241	—	—	—	—	1,241	23,086	24,327
	1949	1,431	—	—	—	—	1,431	—	1,431	24,251	—	—	—	—	24,251	—	24,251
Nyasaland Protectorate ..	1938	675	—	—	—	—	675	—	675	1,688	—	—	—	—	1,688	—	1,688
	1939	750	—	—	—	—	750	—	750	1,875	—	—	—	—	1,875	—	1,875
	1946	320	390	—	—	—	710	—	710	863	1,054	—	—	—	1,917	—	1,917
	1947	194	719	—	—	—	913	—	913	524	2,228	—	—	—	2,752	—	2,752
	1948	44	661	—	—	—	705	—	705	620	5,990	—	—	—	6,610	—	6,610
	1949	762	239	—	—	—	1,001	—	1,001	10,650	2,662	—	—	—	13,312	—	13,312
Totals	1938	128,226	2,463	—	—	95	130,784	1,675	132,459	320,232	6,154	—	—	372	326,758	2,009	328,767
	1939	84,918	4,010	—	—	850	89,778	3,676	93,454	213,851	12,023	—	—	2,127	228,001	5,444	233,445
	1946	28,559	400	—	—	—	28,959	101	29,060	128,124	1,154	—	—	—	129,278	332	129.610
	1947	14,411	719	—	—	—	15,130	1,600	16,730	82,898	2,228	—	—	—	85,126	5,115	90,241
	1948	1,024	661	—	—	—	1,685	4,700	6,385	13,188	5,990	—	—	—	19,178	23,086	42,264
	1949	61,060	240	—	—	—	61,300	103	61,403	1,198,265	2,680	—	—	—	1,200,945	1,094	1,202,039
West Africa :																	
Nigeria	1938	6,858	—	—	—	1	6,859	—	6,859	24,836	—	—	—	6	24,842	15	24,857
	1939	3,259	—	—	—	—	3,259	—	3,259	12,956	—	—	—	—	12,956	—	12,956
	1946	1,500	—	—	—	—	1,500	—	1,500	3,653	—	—	—	—	3,653	—	3,653
	1947	5,163	—	—	—	—	5,163	—	5,163	17,463	—	—	—	—	17,463	—	17,463
	1948	4,815	—	—	—	—	4,815	—	4,815	35,806	—	—	—	—	35,806	1	35,807
	1949	2,904	—	—	—	—	2,904	—	2,904	37,053	—	—	—	—	37,053	—	37,053
Grand Totals	1938	135,084	2,463	—	—	96	137,643	1,675	139,318	345,068	6,154	—	—	378	351,600	2,024	353,624
	1939	88,177	4,010	—	—	850	93,037	3,676	96,713	226,807	12,023	—	—	2,127	240,957	5,444	246,401
	1946	30,059	400	—	—	—	30,459	101	30,560	131,777	1,154	—	—	—	132,931	332	133,263
	1947	19,574	719	—	—	—	20,293	1,600	21,893	100,361	2,228	—	—	—	102,589	5,115	107,704
	1948	5,839	661	—	—	—	6,500	4,700	11,200	48,994	5,990	—	—	—	54,984	23,087	78,071
	1949	63,964	240	—	—	—	64,204	103	64,307	1,235,318	2,680	—	—	—	1,237,998	1,094	1,239,092

N.B.—Other Exporters (See Introductory Note 5) : Swaziland ; Cyprus ; Leeward Islands ; Grenada ; St. Lucia.

(1) **Kenya and Uganda's inter-colonial exports : 1939, Malta (1,000 tons), Tanganyika (24 tons) ; 1946, Tanganyika (60 tons). Tanganyika had no re-exports.**
Except for 1946, when the entire export went to colonial territories other than Kenya and Uganda, Tanganyika's inter-colonial exports all went to Kenya and Uganda. **Kenya and Uganda's re-exports nearly all went to the United Kingdom.**

TABLE 34 : COTTON SEED OIL

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																		
Kenya & Uganda(1)	1946	Gallons	—	—	—	—	—	—	8	8	—	—	—	—	—	—	5	5
	1947	,,	—	—	—	—	4	4	—	4	—	—	—	—	1	1	—	1
	1948	Cwts.	—	—	—	—	3	3	2,996(2)	2,999	—	—	—	—	21	21	21,273	21,294
	1949	,,	—	—	—	—	12	12	1,000(2)	1,012	—	—	—	—	68	68	7,250	7,318

N.B.—Other Exporters (See Introductory Note 5) : Tanganyika ; Leeward Islands.

(1) Not separately enumerated in 1938 and 1939. See table 45.
(2) Cyprus only.

C. OILSEEDS AND VEGETABLE OILS

TABLE 35: GROUNDNUTS (1)

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda	1938	—	50	—	—	136	186	131(7)	317	—	475	—	—	1,174	1,649	1,245	2,894
	1939	—	570	—	—	405	975	150(7)	1,125	—	6,566	—	—	4,570	11,136	1,479	12,615
	1946	—	—	—	—	3	3	—	3	—	—	—	—	60	60	1	61
	1947	1,902	2	—	—	—	1,904	202(7)	2,106	59,116	55	—	—	1	59,172	6,028	65,200
	1948	2,940	65	—	—	—	3,005	269(7)	3,274	111,424	2,052	—	—	8	113,484	8,725	122,209
	1949	210	—	—	—	—	210	13	223	10,300	—	—	—	4	10,304	442	10,746
Tanganyika	1938	—	2,135	—	5	444	2,584	995(7)	3,579	—	18,821	—	42	3,793	22,656	8,542	31,198
	1939	576	2,425	—	—	522	3,523	973(7)	4,496	5,431	22,784	—	—	5,028	33,243	8,524	41,767
	1946	475	—	—	—	—	475	—	475	7,736	—	—	—	—	7,736	—	7,736
	1947	1,938	—	—	—	—	1,938	1,596(7)	3,534	53,837	—	—	—	—	53,837	41,230	95,067
	1948	262	—	—	—	—	262	2,867(7)	3,129	7,860	—	—	—	15	7,875	75,009	82,884
	1949	838	—	—	—	—	838	—	838	49,168	—	—	—	3	49,171	—	49,171
Nyasaland Protectorate ..	1938	6	272	—	—	—	278	—	278	33	1,691	—	—	—	1,724	—	1,724
	1939	34	386	—	31	—	451	—	451	181	2,131	—	169	—	2,481	—	2,481
	1946	1,128	259	—	—	—	1,387	—	1,387	28,190	6,692	—	—	—	34,882	—	34,882
	1947	36	—	—	—	—	36	—	36	636	—	—	—	—	636	—	636
	1948	1	—	—	—	—	1	—	1	34	—	—	—	—	34	—	34
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	1938	6	2,457	—	5	580	3,048	1,126	4,174	33	20,987	—	42	4,967	26,029	9,787	35,816
	1939	610	3,381	—	31	927	4,949	1,123	6,072	5,612	31,481	—	169	9,598	46,860	10,003	56,863
	1946	1,603	259	—	—	3	1,865	—	1,865	35,926	6,692	—	—	60	42,678	1	42,679
	1947	3,876	2	—	—	—	3,878	1,798	5,676	113,589	55	—	—	1	113,645	47,258	160,903
	1948	3,203	65	—	—	—	3,268	3,136	6,404	119,318	2,052	—	—	23	121,393	83,734	205,127
	1949	1,048	—	—	—	—	1,048	13	1,061	59,468	—	—	—	7	59,475	442	59,917
West Africa																	
Gambia(2)	1938	7,489	—	—	—	25,303	32,792	328	33,120	61,053	—	—	—	181,938	242,991	3,700	246,691
	1939	11,448	—	—	—	23,003	34,451	384	34,835	82,516	—	—	—	166,037	248,553	3,033	251,586
	1946	28,295	—	—	—	—	28,295	—	28,295	595,859	—	—	—	—	595,859	—	595,859
	1947	39,429	—	—	—	—	39,429	—	39,429	1,066,127	—	—	—	—	1,066,127	—	1,066,127
	1948	49,005	—	—	—	—	49,005	—	49,005	1,627,999	—	—	—	—	1,627,999	2	1,628,001
	1949	42,774	—	—	—	—	42,774	—	42,774	1,571,134	—	—	—	—	1,571,134	—	1,571,134
Nigeria(3)	1938	57,414	1,200	—	—	121,503	180,117	19	180,136	454,450	7,930	—	—	843,347	1,305,727	101	1,305,828
	1939	53,199	—	976	—	93,076	147,251	12	147,263	373,215	—	7,640	—	667,000	1,047,855	124	1,047,979
	1946	237,212	—	—	19,921	28,535	285,668	—	285,668	4,720,732	—	—	417,398	537,286	5,675,416	—	5,675,416
	1947	250,547	1,950	—	—	3,369	255,866	—	255,866	6,263,675	48,750	—	—	84,225	6,396,650	—	6,396,650
	1948	242,594	227	—	—	2,334	245,155	—	245,155	9,703,760	9,080	—	—	93,360	9,806,200	—	9,806,200
	1949	378,314	—	—	—	6	378,320	—	378,320	18,915,749	—	—	—	300	18,916,049	1	18,916,050
Sierra Leone (4)	1939	—	—	—	—	—	—	—	—	—	—	2	—	—	2	—	2
	1946	129	—	—	—	—	129	—	129	2,768	—	—	—	—	2,768	—	2,768
	1947	24	—	—	—	—	24	—	24	506	—	—	—	—	506	—	506
	1948	890	—	—	—	1	891	—	891	26,558	—	—	—	39	26,597	—	26,597
	1949	2,450	—	—	—	4	2,454	—	2,454	71,445	—	—	—	189	71,634	5	71,639
Totals	1938	64,903	1,200	—	—	146,806	212,909	347	213,256	515,503	7,930	—	—	1,025,285	1,548,718	3,801	1,552,519
	1939	64,647	—	976	—	116,079	181,702	396	182,098	455,731	—	7,642	—	833,037	1,296,410	3,157	1,299,567
	1946	265,636	—	—	19,921	28,535	314,092	—	314,092	5,319,359	—	—	417,398	537,286	6,274,043	—	6,274,043
	1947	290,000	1,950	—	—	3,369	295,319	—	295,319	7,330,308	48,750	—	—	84,225	7,463,283	—	7,463,283
	1948	292,489	227	—	—	2,335	295,051	—	295,051	11,358,317	9,080	—	—	93,399	11,460,796	2	11,460,798
	1949	423,538	—	—	—	10	423,548	—	423,548	20,558,328	—	—	—	489	20,558,817	6	20,558,823

TABLE 35: GROUNDNUTS (1)—*continued*

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
South Africa																	
High Commission Territories																	
Swaziland(5)	1948	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21,000
	1949	..	..	..	..	..	..	..	217	..	..	..	..	..	..	..	13,145
West Indies																	
St. Vincent	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
	1946	—	—	—	—	—	—	127	127	—	—	—	—	17	17	8,384	8,401
	1947	—	—	—	—	1	1	221	222	—	—	—	—	92	92	17,352	17,444
	1948	—	—	—	—	7	7	215	222	—	—	—	—	671	671	20,093	20,764
	1949	—	—	—	—	1	1	209	210	—	—	—	—	74	74	19,568	19,642
Western Pacific																	
Fiji (6)	1947	—	502	—	34	7	543	—	543	—	33,566	—	2,308	477	36,351	—	36,351
	1948	—	262	—	—	3	265	—	265	—	17,765	—	—	223	17,988	6	17,994
	1949	—	273	—	—	1	274	9	283	—	19,381	—	—	60	19,441	547	19,988
Grand Totals (Excluding Swaziland) ..	1938	64,909	3,657	—	5	147,386	215,957	1,473	217,430	515,536	28,917	—	42	1,030,252	1,574,747	13,590	1,588,337
	1939	65,257	3,381	976	31	117,006	186,651	1,519	188,170	461,343	31,481	7,642	169	842,635	1,343,270	13,162	1,356,432
	1946	267,239	259	—	19,921	28,538	315,957	127	316,084	5,355,285	6,692	—	417,398	537,363	6,316,738	8,385	6,325,123
	1947	293,876	2,454	—	34	3,377	299,741	2,019	301,760	7,443,897	82,371	—	2,308	84,795	7,613,371	64,610	7,677,981
	1948	295,692	554	—	—	2,345	298,591	3,351	301,942	11,477,635	28,897	—	—	94,316	11,600,848	103,835	11,704,683
	1949	424,586	273	—	—	12	424,871	231	425,102	20,617,796	19,381	—	—	630	20,637,807	20,563	20,658,370

N.B.—Other Exporters (See Introductory Note 5) : Northern Rhodesia ; Gold Coast ; Jamaica ; St. Lucia ; Tonga.

(1) So far as can be ascertained the figures in this table relate to decorticated nuts except in the case of Gambia : for the purposes of this table Gambia's undecorticated nuts (which predominated) have been put into terms of decorticated by taking unshelled to be equivalent to 70 per cent in weight of shelled nuts.

(2) It is estimated that the total value of Gambia's Groundnuts exports should be increased by some £480,000 and £780,000 in 1948 and 1949 respectively (see footnote (1), Table 9).

(3) Figures for 1947, 1948 and 1949, adjusted for undervaluation (see first paragraph of footnote (1), Table 9).

(4) There were no exports in 1938. It is estimated that the total value of Sierra Leone's Groundnuts exports should be increased by some £2,000 and £26,000 in 1948 and 1949 respectively (see footnote (1), Table 9).

(5) There were no exports in 1938, 1939, 1946 and 1947.

(6) There were no exports in 1938, 1939 and 1946

(7) Kenya and Uganda's inter-colonial exports were mainly to colonial territories, other than Tanganyika except in pre-war years. The bulk of Tanganyika's inter-colonial exports went to Kenya and Uganda, but that territory had insignificant re-exports.

C. OILSEEDS AND VEGETABLE OILS

TABLE 36: GROUNDNUT OIL

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa																	
Nigeria (1)	1946	—	—	—	—	1	1	—	1	1	—	—	—	108	109	—	109
	1947	—	—	—	—	5	5	80	85	—	—	—	—	386	386	6,692	7,078
	1948	204	—	—	—	5	209	119	328	14,610	—	—	—	484	15,094	11,724	26,818
	1949	201	—	—	—	53	254	125	379	14,828	—	—	—	7,392	22,220	14,347	36,567

N.B.—Other Exporters (See Introductory Note 5): Kenya and Uganda, Tanganyika, Nyasaland Protectorate, Gold Coast, Sierra Leone. Malaya has a substantial entrepôt trade in this commodity; its imports and exports were as follows:—

Year	Imports		Exports	
	Quantity (Tons)	Value (£)	Quantity (Tons)	Value (£)
1938	10,903	277,044	1,253	33,748
1939	9,614	240,423	1,555	39,760
1946	93	24,551	21	2,543
1947	362	61,360	27	3,120
1948	490	78,848	690	82,703
1949	649	110,392	447	55,028

(1) Not separately enumerated in 1938 and 1939. See Table 45.

TABLE 37 : LINSEED

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda.. ..	1938	55	—	—	—	—	55	—	55	2,563	—	—	—	—	2,563	11	2,574
	1939	—	—	—	—	—	—	—	—	5	—	—	—	—	5	—	5
	1946	—	—	—	—	1	1	—	1	—	—	—	—	8	8	9	17
	1947	176	—	—	—	—	176	6	182	7,008	—	—	—	—	7,008	361	7,369
	1948	65	—	—	—	—	65	—	65	3,370	—	—	—	—	3,370	—	3,370
	1949	729	—	—	—	—	729	—	729	40,503	—	—	—	—	40,503	—	40,503
Mediterranean																	
Cyprus	1938	214	16	—	—	178	408	—	408	2,794	213	—	—	2,317	5,324	—	5,324
	1939	472	173	—	—	97	742	—	742	6,471	2,604	—	—	1,189	10,264	—	10,264
	1946	—	—	—	—	50	50	—	50	—	—	—	—	4,002	4,002	—	4,002
	1947	—	—	—	—	18	18	—	18	—	—	—	—	2,174	2,174	—	2,174
	1948	—	1	—	—	94	95	1	96	—	38	—	—	7,523	7,561	80	7,641
	1949	1	143	—	—	154	298	2	300	163	6,355	—	—	8,648	15,166	149	15,315
Totals	1938	269	16	—	—	178	463	—	463	5,357	213	—	—	2,317	7,887	11	7,898
	1939	472	173	—	—	97	742	—	742	6,476	2,604	—	—	1,189	10,269	—	10,269
	1946	—	—	—	—	51	51	—	51	—	—	—	—	4,010	4,010	9	4,019
	1947	176	—	—	—	18	194	6	200	7,008	—	—	—	2,174	9,182	361	9,543
	1948	65	1	—	—	94	160	1	161	3,370	38	—	—	7,523	10,931	80	11,011
	1949	730	143	—	—	154	1,027	2	1,029	40,666	6,355	—	—	8,648	55,669	149	55,818

N.B.—Small exports from Tanganyika have been excluded (See Introductory Note 5)

C. OILSEEDS AND VEGETABLE OILS

TABLE 38: PALM KERNELS

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Tanganyika	1938	28	—	—	—	25	53	—	53	186	—	—	—	169	355	—	355
	1939	21	—	—	—	50	71	—	71	154	—	—	—	300	454	—	454
	1946	20	—	—	—	—	20	—	20	350	—	—	—	—	350	—	350
	1947	10	—	—	—	204	214	—	214	340	—	—	—	9,698	10,038	—	10,038
	1948	10	—	—	—	192	202	—	202	350	—	—	—	9,600	9,950	—	9,950
	1949	168	—	—	—	46	214	—	214	6,614	—	—	—	1,627	8,241	—	8,241
West Africa																	
Gambia	1938	575	—	—	—	106	681	—	681	3,857	—	—	—	678	4,535	—	4,535
	1939	656	—	—	—	—	656	—	656	4,279	—	—	—	—	4,279	—	4,279
	1946	1,291	—	—	—	—	1,291	—	1,291	18,587	—	—	—	—	18,587	—	18,587
	1947	1,159	—	—	—	—	1,159	—	1,159	24,482	—	—	—	—	24,482	—	24,482
	1948	1,241	—	—	—	—	1,241	—	1,241	30,221	—	—	—	—	30,221	—	30,221
	1949	1,551	—	—	—	—	1,551	—	1,551	38,446	—	—	—	—	38,446	—	38,446
Gold Coast	1938	1,868	—	4	—	3,321	5,193	—	5,193	14,532	—	21	—	25,078	39,631	—	39,631
	1939	3,038	—	—	—	991	4,029	58	4,087	20,049	—	—	—	6,727	26,776	349	27,125
	1946	4,716	—	—	—	1,237	5,953	—	5,953	60,264	—	—	—	13,784	74,048	—	74,048
	1947	3,226	—	—	—	440	3,666	—	3,666	60,697	—	—	—	4,378	65,075	—	65,075
	1948	6,286	—	—	—	852	7,138	—	7,138	155,823	—	—	—	9,297	165,120	—	165,120
	1949	2,338	—	—	—	557	2,895	—	2,895	61,365	—	—	—	7,815	69,180	—	69,180
Nigeria (1)	1938	115,594	—	2,858	—	193,595	312,047	—	312,047	794,916	—	19,172	—	1,354,278	2,168,366	—	2,168,366
	1939	159,564	—	912	—	139,467	299,943	—	299,943	995,197	—	5,603	—	871,704	1,872,504	—	1,872,504
	1946	285,265	—	—	—	14,735	300,000	—	300,000	4,315,000	—	—	—	186,000	4,501,000	—	4,501,000
	1947	311,779	—	—	—	4,597	316,376	—	316,376	9,353,370	—	—	—	137,911	9,491,281	—	9,491,281
	1948	317,154	—	—	—	10,020	327,174	—	327,174	11,100,390	—	—	7	350,700	11,451,097	—	11,451,097
	1949	372,805	—	—	—	3,030	375,835	—	375,835	16,776,225	—	—	—	136,350	16,912,575	—	16,912,575
Sierra Leone (2)	1938	24,146	—	923	—	38,628	63,697	—	63,697	171,767	—	6,097	—	279,167	457,031	—	457,031
	1939	36,839	306	516	—	32,086	69,747	—	69,747	241,083	1,886	3,355	—	214,396	460,720	—	460,720
	1946	46,773	—	—	—	—	46,773	—	46,773	688,840	—	—	—	—	688,840	—	688,840
	1947	61,241	—	—	—	—	61,241	—	61,241	1,301,742	—	—	—	—	1,301,742	—	1,301,742
	1948	66,431	—	—	—	—	66,431	—	66,431	1,744,591	—	—	—	—	1,744,591	—	1,744,591
	1949	76,541	—	—	—	—	76,541	—	76,541	2,314,038	—	—	—	—	2,314,038	—	2,314,038
Totals	1938	142,183	—	3,785	—	235,650	381,618	—	381,618	985,072	—	25,290	—	1,659,201	2,669,563	—	2,669,563
	1939	200,097	306	1,428	—	172,544	374,375	58	374,433	1,260,608	1,886	8,958	—	1,092,827	2,364,279	349	2,364,628
	1946	338,045	—	—	—	15,972	354,017	—	354,017	5,082,691	—	—	—	199,784	5,282,475	—	5,282,475
	1947	377,405	—	—	—	5,037	382,442	—	382,442	10,740,291	—	—	—	142,289	10,882,580	—	10,882,580
	1948	391,112	—	—	—	10,872	401,984	—	401,984	13,031,025	—	—	7	359,997	13,391,029	—	13,391,029
	1949	453,235	—	—	—	3,587	456,822	—	456,822	19,190,074	—	—	—	144,165	19,334,239	—	19,334,239
Eastern																	
Federation of Malaya and Singapore (3)	1938	2,457	—	200	—	6,702	9,359	—	9,359	15,761	—	1,167	—	44,897	61,825	—	61,825
	1939	3,702	—	—	—	7,072	10,774	—	10,774	22,619	—	—	—	41,000	63,619	—	63,619
	1946	153	—	—	—	—	153	—	153	3,370	—	—	—	—	3,370	—	3,370
	1947	5,245	—	—	—	—	5,245	—	5,245	156,733	—	—	—	—	156,733	—	156,733
	1948	4,434	—	—	—	2,038	6,472	—	6,472	133,032	—	—	—	86,820	219,852	—	219,852
	1949	4,071	—	—	—	4,673	8,744	—	8,744	168,903	—	—	—	215,734	384,637	—	384,637
Grand Totals	1938	144,668	—	3,985	—	242,377	391,030	—	391,030	1,001,019	—	26,457	—	1,704,267	2,731,743	—	2,731,743
	1939	203,820	306	1,428	—	179,666	385,220	58	385,278	1,283,381	1,886	8,958	—	1,134,127	2,428,352	349	2,428,701
	1946	338,218	—	—	—	15,972	354,190	—	354,190	5,086,411	—	—	—	199,784	5,286,195	—	5,286,195
	1947	382,660	—	—	—	5,241	387,901	—	387,901	10,897,364	—	—	—	151,987	11,049,351	—	11,049,351
	1948	395,556	—	—	—	13,102	408,658	—	408,658	13,164,407	—	—	7	456,417	13,620,831	—	13,620,831
	1949	457,474	—	—	—	8,306	465,780	—	465,780	19,365,591	—	—	—	361,526	19,727,117		19,727,117

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(1) Figures for 1946 are an estimated revision of those published. Figures for 1947, 1948 and 1949 adjusted for undervaluation (See first paragraph of footnote (1), Table 9).

(2) It is estimated that the total value of Sierra Leone's Palm Kernel exports should be increased by some £415,000 and £1,115,000 in 1948 and 1949 respectively (See first paragraph of footnote (1), Table 9).

(3) Imports of Malaya [illegible]

Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Tanganyika	1938	21	—	—	—	—	21	—	21	205	—	—	—	—	205	22	227
	1939	7	—	—	—	—	7	5	12	70	—	—	—	—	70	110	180
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
	1949	197	—	—	—	—	197	—	197	12,808	—	—	—	—	12,808	—	12,808
West Africa																	
Gold Coast	1938	20	—	339	—	288	647	—	647	254	—	5,293	—	4,326	9,873	—	9,873
	1939	—	25	—	—	355	380	—	380	—	917	—	—	3,863	4,780	—	4,780
	1946	165	—	—	—	—	165	—	165	4,055	—	—	—	—	4,055	—	4,055
	1947	183	—	—	—	—	183	—	183	7,644	—	—	—	—	7,644	—	7,644
	1948	42	—	—	—	—	42	—	42	3,555	—	—	—	9	3,564	—	3,564
	1949	258	—	—	—	—	258	—	258	23,974	—	—	—	24	23,998	—	23,998
Nigeria (1)	1938	84,503	1,585	6,634	—	16,651	109,373	871	110,244	751,015	15,439	50,453	—	155,730	972,637	8,692	981,329
	1939	108,962	1,750	5,016	1,770	8,291	125,789	233	126,022	790,573	16,427	33,710	12,698	74,207	927,615	2,089	929,704
	1946	90,152	—	518	7,770	2,138	100,578	307	100,885	1,848,683	—	10,536	149,861	35,994	2,045,074	5,781	2,050,855
	1947	121,864	134	971	1,318	1,064	125,351	603	125,954	4,874,560	5,360	38,840	52,720	42,560	5,014,040	24,120	5,038,160
	1948	131,829	376	1,698	3,070	2,095	139,068	136	139,204	8,568,885	24,440	110,370	199,550	136,175	9,039,420	8,840	9,048,260
	1949	153,315	4,183	—	—	12,519	170,017	128	170,145	10,732,050	292,810	—	—	876,271	11,901,131	8,960	11,910,091
Sierra Leone (2)	1938	597	—	53	—	312	962	104	1,066	8,372	—	541	—	5,574	14,487	1,538	16,025
	1939	1,042	—	—	—	30	1,072	96	1,168	11,308	—	—	—	296	11,604	1,028	12,632
	1946	—	—	—	—	—	—	107	107	—	—	—	—	14	14	4,449	4,463
	1947	520	—	—	—	—	520	117	637	25,293	—	—	—	—	25,293	5,564	30,857
	1948	1,945	—	—	—	6	1,951	263	2,214	101,611	—	—	—	406	102,017	14,347	116,364
	1949	2,692	—	—	—	10	2,702	606	3,308	147,356	—	—	—	861	148,217	38,131	186,348
Totals	1938	85,120	1,585	7,026	—	17,251	110,982	975	111,957	759,641	15,439	56,287	—	165,630	996,997	10,230	1,007,227
	1939	110,004	1,775	5,016	1,770	8,676	127,241	329	127,570	801,881	17,344	33,710	12,698	78,366	943,999	3,117	947,116
	1946	90,317	—	518	7,770	2,138	100,743	414	101,157	1,852,738	—	10,536	149,861	36,008	2,049,143	10,230	2,059,373
	1947	122,567	134	971	1,318	1,064	126,054	720	126,774	4,907,497	5,360	38,840	52,720	42,560	5,046,977	29,684	5,076,661
	1948	133,816	376	1,698	3,070	2,101	141,061	399	141,460	8,674,051	24,440	110,370	199,550	136,590	9,145,001	23,187	9,168,188
	1949	156,265	4,183	—	—	12,529	172,977	734	173,711	10,903,380	292,810	—	—	877,156	12,073,346	47,091	12,120,437
Eastern																	
Federation of Malaya and Singapore (3)	1938	31,087	3,042	230	18,748	1,406	54,513	27	54,540	394,812	48,294	2,895	261,517	20,056	727,574	422	727,996
	1939	31,799	2,512	159	24,100	1,197	59,767	12	59,779	360,479	35,167	2,305	275,580	16,727	690,258	162	690,420
	1946	8,275	18	—	—	3	8,296	18	8,314	472,498	700	—	—	170	473,368	443	473,811
	1947	44,432	122	—	—	586	45,140	191	45,331	2,483,290	14,223	—	—	43,955	2,541,468	14,197	2,555,665
	1948	46,688	15	—	—	1,681	48,384	427	48,811	3,591,886	2,106	—	—	176,721	3,770,713	26,892	3,797,605
	1949	54,085	559	15	—	589	55,248	4	55,252	4,377,542	51,498	1,179	—	57,772	4,487,991	517	4,488,508
Grand Totals	1938	116,228	4,627	7,256	18,748	18,657	165,516	1,002	166,518	1,154,658	63,733	59,182	261,517	185,686	1,724,776	10,674	1,735,450
	1939	141,810	4,287	5,175	25,870	9,873	187,015	346	187,361	1,162,430	52,511	36,015	288,278	95,093	1,634,327	3,389	1,637,716
	1946	98,592	18	518	7,770	2,141	109,039	432	109,471	2,325,236	700	10,536	149,861	36,178	2,522,511	10,673	2,533,184
	1947	166,999	256	971	1,318	1,650	171,194	911	172,105	7,390,787	19,583	38,840	52,720	86,515	7,588,445	43,881	7,632,326
	1948	180,504	391	1,698	3,070	3,782	189,445	826	190,271	12,265,937	26,546	110,370	199,550	313,311	12,915,714	50,081	12,965,795
	1949	210,547	4,742	15	—	13,118	228,422	738	229,160	15,293,730	344,308	1,179	—	934,928	16,574,145	47,608	16,621,753

N.B.—Small exports from Sarawak have been excluded.

(1) Figures for 1947, 1948 and 1949 adjusted for under-valuation (See first paragraph of Footnote (1), Table 9).
(2) It is estimated that the total value of Sierra Leone's Palm Oil exports should be increased by some £18,000 and £44,000 in 1948 and 1949 respectively (See first paragraph of Footnote (1), Table 9).
(3) The imports of Malaya were as follows :—

Year	Quantity (Tons)	Value (£000)
1938	163	2
1939	62	1
1946	134	6
1947	2,006	121
1948	1,552	151
1949	41	34

C. OILSEEDS AND VEGETABLE OILS

TABLE 40 : SESAME

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda ..	1938	—	—	—	—	1,700	1,700	358(1)	2,058	—	—	—	—	18,719	18,719	3,847	22,566
	1939	100	15	—	—	3,182	3,297	581(1)	3,878	1,500	150	—	—	35,500	37,150	6,279	43,429
	1946	—	—	—	—	1	1	—	1	—	—	—	—	20	20	—	20
	1947	—	—	—	—	—	—	—	—	—	—	—	—	3	3	1	4
	1948	—	—	—	—	—	—	—	—	—	—	—	—	4	4	2	6
	1949	—	—	—	—	—	—	—	—	—	—	—	—	4	4	11	15
Tanganyika	1938	—	85	—	—	1,853	1,938	3,303(1)	5,241	—	865	—	—	18,698	19,563	33,754	53,317
	1939	100	375	—	—	1,787	2,262	2,377(1)	4,639	950	3,906	—	—	18,846	23,702	24,379	48,081
	1946	—	—	—	—	24	24	905(1)	929	—	—	—	—	310	310	15,393	15,703
	1947	—	—	—	—	—	—	493(1)	493	—	—	—	—	—	—	10,303	10,303
	1948	—	—	—	—	8	8	920(1)	928	—	—	—	—	200	200	21,432	21,632
	1949	6	—	—	—	—	6	—	6	187	—	—	—	—	187	—	187
Totals	1938	—	85	—	—	3,553	3,638	3,661	7,299	—	865	—	—	37,417	38,282	37,601	75,883
	1939	200	390	—	—	4,969	5,559	2,958	8,517	2,450	4,056	—	—	54,346	60,852	30,658	91,510
	1946	—	—	—	—	25	25	905	930	—	—	—	—	330	330	15,393	15,723
	1947	—	—	—	—	—	—	493	493	—	—	—	—	3	3	10,304	10,307
	1948	—	—	—	—	8	8	920	928	—	—	—	—	204	204	21,434	21,638
	1949	6	—	—	—	—	6	—	6	187	—	—	—	4	191	11	202

N.B.—Small exports from Nyasaland Protectorate have been excluded (See Introductory Note 5).

(1) A very small portion of Kenya and Uganda's inter-colonial exports went to Tanganyika. Tanganyika exported considerable quantities to Kenya and Uganda and all of Kenya and Uganda's imports were from this source, its re-exports being negligible.

TABLE 41 : SESAME OIL

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																		
Kenya and Uganda	1938	Galls.	—	76	—	—	56,398	56,474	37,159	93,633	—	11	—	—	7,035	7,046	4,107	11,153
	1939	"	—	84	—	—	51,731	51,815	50,928	102,743	—	8	—	—	5,885	5,893	5,455	11,348
	1946	"	—	—	—	—	4	4	1,574	1,578	—	—	—	—	1	1	361	362
	1947	"	—	—	—	—	758	758	540	1,298	—	—	—	—	207	207	131	338
	1948	Tons	—	—	—	—	4	4	—	4	—	—	—	—	272	272	4	276
	1949	"	—	—	—	—	3	3	—	3	—	—	—	—	202	202	—	202
Zanzibar Protectorate (1)	1938	Tons	—	1	—	—	148	149	3	152	—	39	—	—	4,856	4,895	109	5,004
	1939	"	—	4	—	—	109	113	—	113	—	111	—	—	2,850	2,961	10	2,971
Totals (2)	1938	Tons	—	1	—	—	380	381	156	537	—	50	—	—	11,891	11,941	4,216	16,157
	1939	"	—	4	—	—	322	326	210	536	—	119	—	—	8,735	8,854	5,465	14,319
	1946	"	—	—	—	—	—	—	6	6	—	—	—	—	1	1	361	362
	1947	"	—	—	—	—	3	3	2	5	—	—	—	—	207	207	131	338
	1948	"	—	—	—	—	4	4	—	4	—	—	—	—	272	272	4	276
	1949	"	—	—	—	—	3	3	—	3	—	—	—	—	202	202	—	202

N.B.—Small exports from Tanganyika have been excluded (See Introductory Note 5).

(1) There were no exports in 1946-9.

(2) Exports of Kenya and Uganda converted from liquid measure to weight at the rate of 243 gallons = 1 ton.

C. OILSEEDS AND VEGETABLE OILS

TABLE 42 : SOYA BEANS

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda (1) ..	1948	2,437	—	—	—	143	2,580	66	2,646	75,171	—	—	—	1,973	77,144	143	77,287
	1949	3,611	—	—	—	—	3,611	—	3,611	114,883	—	—	—	—	114,883	—	114,883
Tanganyika (1)	1948	11	—	—	—	—	11	—	11	329	—	—	—	—	329	—	329
	1949	1,284	—	—	—	—	1,284	—	1,284	40,037	—	—	—	—	40,037	—	40,037
Nyasaland Protectorate ..	1938	212	—	—	—	—	212	—	212	805	—	—	—	1	806	—	806
	1939	660	125	—	—	—	785	—	785	2,640	502	—	—	—	3,142	—	3,142
	1946	4	666	—	—	—	670	—	670	63	9,753	—	—	—	9,816	—	9,816
	1947	76	647	—	—	—	723	—	723	1,107	9,543	—	—	—	10,650	—	10,650
	1948	365	59	—	—	—	424	15	439	10,499	903	—	—	—	11,402	223	11,625
	1949	178	—	—	—	—	178	—	178	5,437	—	—	—	—	5,437	12	5,449
Totals	1948	2,813	59	—	—	143	3,015	81	3,096	85,999	903	—	—	1,973	88,875	366	89,241
	1949	5,073	—	—	—	—	5,073	—	5,073	160,357	—	—	—	—	160,357	12	160,369

(1) Not separately enumerated in 1938, 1939, 1946 and 1947. See Table 44.

TABLE 43 : SUNFLOWER SEED

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa ..																	
Kenya and Uganda ..	1938	335	—	—	—	—	335	—	335	2,670	—	—	—	—	2,670	—	2,670
	1939	459	—	—	18	—	477	—	477	3,853	—	—	144	—	3,997	—	3,997
	1946	—	75	—	—	—	75	—	75	—	1,033	—	—	—	1,033	10	1,043
	1947	48	38	—	—	—	86	—	86	1,313	516	—	—	—	1,829	—	1,829
	1948	828	—	—	—	—	828	—	828	26,732	—	—	—	—	26,732	15	26,747
	1949	1,604	—	28	—	258	1,890	—	1,890	51,111	—	942	—	9,273	61,326	—	61,326
Tanganyika (1)	1948	2,196	—	—	—	—	2,196	102	2,298	70,019	—	—	—	—	70,019	2,831	72,850
	1949	4,625	—	—	—	263	4,888	—	4,888	147,544	—	—	—	8,273	155,817	—	155,817

(1) Not separately enumerated in 1938, 1939, 1946 and 1947. See Table 44.

C. OILSEEDS AND VEGETABLE OILS

TABLE 44: OTHER OR UNSPECIFIED OIL SEEDS, NUTS AND KERNELS

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Tanganyika (1)	1938	181	602	—	—	1	784	876	1,660	628	3,003	—	—	30	3,661	5,001	8,662
	1939	192	299	—	—	4	495	673	1,168	537	2,631	—	—	40	3,208	5,179	8,387
	1946	684	—	—	—	—	684	97	781	12,617	—	—	—	—	12,617	445	13,062
	1947	723	—	—	—	—	723	58	781	18,286	—	—	—	2	18,288	842	19,130
	1948	256	—	—	—	180	436	—	436	3,881	—	—	—	3,581	7,462	—	7,462
	1949	315	—	—	—	25	340	—	340	7,634	—	—	—	500	8,134	—	8,134
West Africa																	
Nigeria (2)	1938	..	—	—	—	..	..	..	..	26,660	—	—	—	597	21,257	3,543	24,800
	1939	..	—	—	—	..	..	..	..	18,989	—	—	—	5,627	24,616	3,463	28,079
	1946	..	..	—	—	..	..	..	..	58,964	2	—	—	62	59,028	99	59,127
	1947	..	..	—	—	..	..	..	..	150,792	4	—	—	5	150,801	20	150,821
	1948	..	..	—	—	..	..	—	..	111,739	2,400	—	—	2,064	116,203	—	116,203
	1949	..	..	..	—	..	..	..	..	116,445	2	3,403	—	3,659	123,509	6	123,515

N.B.—Other Exporters (See Introductory, Note 5) :—

Kenya and Uganda : 1938-9 (Other than Copra, Groundnuts, Coconuts, Cotton seed, Linseed, Sesame and Sunflower seed).
1946-7 (Other than Copra, Groundnuts, Coconuts, Cotton seed, Linseed, Sesame seed, Sunflower seed and Castor seed).
1948 (Other than Copra, Groundnuts, Coconuts, Cotton seed, Linseed, Sesame seed, Sunflower seed, Castor seed and Soya Beans).
1949 (Other than Groundnuts, Coconuts, Cotton seed, Linseed, Sesame seed, Sunflower seed, Castor seed and Soya Beans).

Zanzibar Protectorate : 1938-9, 1946-9 (Other than Copra and Coconuts).

Sierra Leone : 1946-9 (Other than Benniseed, Groundnuts and Palm Kernels).

In 1946-9 Nyasaland Protectorate exported a small quantity of Tung Oil seed.

(1) 1938-9, 1946-7 : Other than Copra, Palm Kernels, Groundnuts, Coconuts, Cotton, and Sesame seed.
1948-9 : Other than Copra, Palm Kernels, Groundnuts, Coconuts, Cotton seed, Sesame, Castor seed, Linseed, Soya Beans and Sunflower seed.

(2) 1938-9, 1946-9 : Other than Benniseed, Copra, Cotton seed, Groundnuts, Coconuts and Palm Kernels.

TABLE 45: OTHER OR UNSPECIFIED VEGETABLE OILS

			Quantity								Value (£)						
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East & Central Africa																		
Kenya and Uganda (1)	1938	Galls.	—	—	—	—	5	5	202	207	—	—	—	—	1	1	31	32
	1939	,,	—	—	—	—	—	—	6	6	—	—	—	—	—	—	2	2
	1946	,,	—	2,000	—	—	24,711	26,711	5,258	31,969	—	1,350	—	—	8,515	9,865	2,048	11,913
	1947	,,	—	4,420	—	—	2,429	6,849	5,721	12,570	—	1,300	—	—	920	2,220	2,128	4,348
	1948	Tons	—	—	—	—	—	—	20	20	—	—	—	—	3	3	1,750	1,753
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nyasaland Protectorate (2)	1946	lbs.	87,836	149,030	—	—	—	236,866	—	236,866	9,216	16,087	—	—	—	25,303	—	25,303
	1947	,,	44,850	106,650	—	—	5,850	157,350	—	157,350	4,706	11,184	—	—	614	16,504	—	16,504
	1948	,,	775,114	22,670	—	—	3,900	801,684	—	801,684	65,127	1,569	—	—	270	66,966	—	66,966
	1949	,,	642,033	—	—	—	—	642,033	—	642,033	40,051	—	—	—	—	40,051	—	40,051
Northern Rhodesia (3) . .	1946	Galls.	—	66,016	—	—	—	66,016	13,608	79,624	—	17,490	—	—	—	17,490	3,722	21,212
	1947	,,	—	4,983	—	—	—	4,983	3,490	8,473	—	2,137	—	—	—	2,137	1,511	3,648
	1948	,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	,,	. .	. .	—	—	—	. .	. .	. .	867	500	—	—	—	1,367	7	1,374
West Africa																		
Gold Coast (4) . .	1938	Tons	—	—	—	—	15	15	1	16	—	—	—	—	337	337	195	532
	1939	,,	—	—	—	—	22	22	—	22	—	—	—	—	321	321	6	327
	1946	,,	—	—	—	—	—	—	—	—	16	—	—	—	23	39	—	39
	1947	,,	—	—	—	—	—	—	—	—	36	—	2	—	2	40	—	40
	1948	,,	281	—	—	—	—	281	—	281	23,902	—	—	—	—	23,902	—	23,902
	1949	,,	85	2	—	—	—	87	—	87	7,254	550	—	—	2	7,806	—	7,806
Nigeria (5) . .	1938	Tons	. .	. .	. .	. .	. .	. .	. .	118	. .	. .	. .	. .	. .	. .	. .	1,355
	1939	,,	21	—	—	—	1	22	61	83	549	—	—	—	28	577	1,537	2,114
	1946	,,	—	—	24	—	5	29	—	29	1	—	1,260	—	69	1,330	9	1,339
	1947	,,	—	—	13	—	7	20	—	20	—	—	645	—	123	768	8	776
	1948	,,	80	—	—	—	—	80	—	80	1,792	—	—	—	48	1,840	—	1,840
	1949	,,	212	—	—	—	4	216	—	216	6,004	—	—	—	171	6,175	27	6,202
South Africa High Commission Territories																		
Swaziland (6) . .	1948	—	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	5,500
	1949	Tons	. .	. .	. .	. .	. .	. .	. .	65	. .	. .	. .	. .	. .	. .	. .	10,000

C. OILSEEDS AND VEGETABLE OILS

TABLE 45: OTHER OR UNSPECIFIED VEGETABLE OILS—*(continued)*.

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies																		
Barbados (7) ..	1946	Galls.	—	—	—	—	—	—	30,593	30,593	—	—	—	—	—	—	8,648	8,648
	1947	,,	—	—	—	—	—	—	52,755	52,755	—	—	—	—	—	—	15,387	15,387
	1948	,,	—	—	—	—	—	—	49,365	49,365	—	—	—	—	—	—	16,660	16,660
	1949	,,	—	—	—	—	—	—	39,787	39,787	—	—	—	—	—	—	12,848	12,848
Trinidad and Tobago (8) ..	1938	Tons	—	—	—	44	7	51	328	379	—	—	—	723	196	919	6,561	7,480
	1939	,,	—	—	—	24	198	222	1,075	1,297	12	—	—	490	7,041	7,543	22,067	29,610
	1946	,,	—	—	—	—	9	9	443	452	—	—	—	—	786	786	38,288	39,074
	1947	Galls.	—	—	—	—	2,200	2,200	179,142	181,342	—	—	—	—	853	853	61,217	62,070
	1948	Tons	—	—	—	—	—	—	8	8	—	—	—	—	—	—	846	846
	1949	,,	—	—	—	—	—	—	162	162	—	—	—	—	2	2	17,139	17,141

N.B.—Other Exporters (See Introductory Note 5).

Tanganyika :	1938-9, 1946-7.	Other than Coconut Oil, Groundnut Oil, Sesame Oil and Palm Oil.
	1948.	Palm Kernel Oil.
	1949.	Other than Cotton Seed Oil, Groundnut Oil, Coconut Oil, Sesame Oil, Palm Oil and Castor Seed Oil.
Sierra Leone :	1946-9	Shea Butter.
Federation of Malaya :	1938-9, 1946-9.	Other than Castor Seed Oil, Palm Oil, Groundnut Oil and Coconut Oil.
Cyprus :	1938-9, 1946-9.	Olive Oil.
Jamaica :	1949.	Other than Coconut Oil.
British Guiana :	1949.	Edible Oils.
(1)	1938-9.	Other than Coconut Oil, Groundnut Oil, Palm Oil and Sesame Oil.
	1946-7	Other than Coconut Oil, Groundnut Oil, Palm Oil, Sesame Oil, Castor Seed Oil and Cotton Seed Oil.
	1948.	Soya Bean Oil.
(2)	1946-9.	Tung Oil. There were no exports in 1938 and 1939.
(3)	1946-7.	Palm Kernel Oil. There were no exports in 1938 and 1939.
	1949.	Not specified.
(4)	1938-9, 1946-7.	Other than Palm Oil.
	1948.	Mainly Palm Kernel Oil.
	1949.	Other than Palm Oil and Groundnut Oil.
(5)	1938-9, 1946-9.	Other than Palm Oil and Groundnut Oil. Mainly Palm Kernel Oil in 1948.
(6)	1948-9.	Tung Oil. There were no exports in 1938, 1939, 1946 and 1947.
(7)	1946-9.	Edible Oils, including Coconut Oil. There were no exports in 1938 and 1939.
(8)	1938-9, 1946-9.	Edible Oils.

TABLE 46 : COTTON (RAW)

Colony, etc.	Year	Quantity (Centals)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda	1938	107,078	1,359,673	—	—	190,764	1,657,515	285(4)	1,657,800	221,204	2,916,077	—	—	394,362	3,531,643	420	3,532,063
	1939	50,737	825,251	—	—	502,087	1,378,075	122(4)	1,378,197	102,995	1,676,179	—	—	1,000,269	2,779,443	131	2,779,574
	1946	294,188	583,130	—	—	—	877,318	5,998(4)	883,316	1,801,705	3,845,748	—	—	—	5,647,453	13,311	5,660,764
	1947	83,269	845,904	—	—	86,538	1,015,711	11,161(4)	1,026,872	566,360	5,946,740	—	—	630,561	7,143,661	74,773	7,218,434
	1948	230,852	397,518	—	—	77,707	706,077	32(4)	706,109	2,164,381	4,432,873	—	—	956,898	7,554,152	210	7,554,362
	1949	380,447	863,466	—	—	337,165	1,581,078	2,200	1,583,278	4,138,834	9,508,273	—	—	3,918,980	17,566,087	25,052	17,591,139
Tanganyika	1938	38,329	117,063	—	—	16,135	171,527	27,178(4)	198,705	83,036	216,937	—	—	30,817	330,790	49,514	380,304
	1939	40,405	103,585	—	—	55,423	199,413	61,177(4)	260,590	88,039	235,530	—	—	119,946	443,515	113,843	557,358
	1946	19,226	59,750	—	—	—	78,976	9,688(4)	88,664	76,321	264,980	—	—	—	341,301	35,009	376,310
	1947	15,365	119,314	—	—	16,317	150,996	6,811(4)	157,807	72,349	570,083	—	—	115,207	757,639	25,240	782,879
	1948	45,262	96,440	—	—	7,912	149,614	71,992(4)	221,606	357,852	572,751	—	—	41,579	972,182	355,996	1,328,178
	1949	42,374	194,335	—	—	3,074	239,783	2,218	242,001	370,042	1,644,595	—	—	26,560	2,041,197	18,582	2,059,779
Nyasaland Protectorate	1938	37,112	2,195	—	—	29,207	68,514	25	68,539	54,122	3,202	—	—	42,593	99,917	36	99,953
	1939	20,658	—	—	—	4,866	25,524	22	25,546	30,126	—	—	—	7,096	37,222	32	37,254
	1946	21,582	7,480	—	—	9,057	38,119	163	38,282	74,608	19,301	—	—	31,943	125,852	400	126,252
	1947	18,855	7,726	—	—	10,442	37,023	21	37,044	114,510	15,429	—	—	59,707	189,646	87	189,733
	1948	28,721	1,170	—	—	19,167	49,058	—	49,058	240,903	5,804	—	—	122,438	369,145	—	369,145
	1949	17,313	5,128	—	—	6,864	29,305	—	29,305	151,500	23,501	—	—	43,363	218,364	—	218,364
Totals	1938	182,519	1,478,931	—	—	236,106	1,897,556	27,488	1,925,044	358,362	3,136,216	—	—	467,772	3,962,350	49,970	4,012,320
	1939	111,800	928,836	—	—	562,376	1,603,012	61,321	1,664,333	221,160	1,911,709	—	—	1,127,311	3,260,180	114,006	3,374,186
	1946	334,996	650,360	—	—	9,057	994,413	15,849	1,010,262	1,952,634	4,130,029	—	—	31,943	6,114,606	48,720	6,163,326
	1947	117,489	972,944	—	—	113,297	1,203,730	17,993	1,221,723	753,219	6,532,252	—	—	805,475	8,090,946	100,100	8,191,046
	1948	304,835	495,128	—	—	104,786	904,749	72,024	976,773	2,763,136	5,011,428	—	—	1,120,915	8,895,479	356,206	9,251,685
	1949	440,134	1,062,929	—	—	347,103	1,850,166	4,418	1,854,584	4,660,376	11,176,369	—	—	3,988,903	19,825,648	43,634	19,869,282
West Africa																	
Nigeria (1)	1938	102,008	—	—	—	26,327	128,335	—	128,335	197,410	—	—	—	49,445	246,855	—	246,855
	1939	90,749	—	—	—	7,453	98,202	—	98,202	176,657	—	—	—	14,766	191,423	—	191,423
	1946	148,107	—	—	—	—	148,107	—	148,107	535,572	—	—	—	—	535,572	—	535,572
	1947	117,545	—	—	—	—	117,545	—	117,545	519,552	—	—	—	—	519,552	—	519,552
	1948	103,824	—	—	—	—	103,824	—	103,824	475,785	—	—	—	—	475,785	—	475,785
	1949	223,642	—	—	—	—	223,642	—	223,642	1,447,680	—	—	—	—	1,447,680	—	1,447,680
Mediterranean																	
Cyprus (2)	1938	1,768	520	—	—	1,127	3,415	—	3,415	3,733	967	—	—	2,129	6,829	—	6,829
	1939	1,493	311	—	—	2,516	4,320	—	4,320	2,770	634	—	—	4,789	8,193	—	8,193
	1946	—	—	—	—	10	10	—	10	—	—	—	—	80	80	—	80
Malta (3)	1949	—	—	—	—	896	896	—	896	—	—	—	—	6,530	6,530	—	6,530
West Indies																	
Leeward Islands	1938	12,344	—	—	—	1,026	13,370	—	13,370	76,523	—	—	—	6,269	82,792	—	82,792
	1939	14,098	—	—	—	596	14,694	—	14,694	90,659	—	—	—	3,771	94,430	—	94,430
	1946	..	..	..	..	..	..	..	6,855	..	..	..	..	..	..	..	49,644
	1947	..	..	..	..	..	..	..	9,156	..	..	..	..	..	..	..	97,210
	1948	..	..	..	..	..	..	..	10,965	..	..	..	..	..	..	..	154,719
	1949	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	341,375

D. FIBRES

TABLE 46 : COTTON (RAW)—*continued.*

		Quantity (Centals)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies—(*continued*)																	
Barbados	1938	41	—	—	—	—	41	—	41	233	—	—	—	—	233	—	233
	1939	24	—	—	—	—	24	—	24	233	—	—	—	—	233	—	233
	1946	98	—	—	—	—	98	—	98	1,231	—	—	—	—	1,231	—	1,231
	1947	142	—	—	—	—	142	—	142	1,738	—	—	—	—	1,738	—	1,738
	1948	121	—	—	—	—	121	—	121	2,115	—	—	—	—	2,115	—	2,115
	1949	583	—	—	—	—	583	—	583	12,140	—	—	—	—	12,140	—	12,140
Grenada	1938	2,291	—	—	—	—	2,291	10	2,301	2,572	—	—	—	—	2,572	16	2,588
	1939	2,243	—	—	—	—	2,243	—	2,243	3,677	—	—	—	—	3,677	—	3,677
	1946	—	—	—	—	1,122	1,122	94	1,216	—	—	—	—	5,841	5,841	341	6,182
	1947	988	—	—	—	—	988	243	1,231	5,350	—	—	—	—	5,350	1,274	6,624
	1948	497	—	—	—	—	497	10	507	1,550	—	—	—	—	1,550	40	1,590
	1949	1,245	—	—	—	—	1,245	255	1,500	11,152	—	—	—	—	11,152	2,288	13,440
St. Vincent	1938	7,370	—	80	—	88	7,538	24	7,562	59,821	—	733	—	800	61,354	30	61,384
	1939	4,988	—	119	—	398	5,505	12	5,517	43,144	—	1,095	—	3,651	47,890	15	47,905
	1946	3,329	—	—	—	79	3,408	544	3,952	41,195	—	—	—	394	41,589	875	42,464
	1947	2,004	—	—	—	—	2,004	282	2,286	24,965	—	—	—	—	24,965	927	25,892
	1948	2,559	—	—	—	—	2,559	29	2,588	44,257	—	—	—	—	44,257	249	44,506
	1949	3,236	—	—	—	93	3,329	64	3,393	66,674	—	—	—	516	67,190	401	67,591
Totals	1938	22,046	—	80	—	1,114	23,240	34	23,274	139,149	—	733	—	7,069	146,951	46	146,997
	1939	21,353	—	119	—	994	22,466	12	22,478	137,713	—	1,095	—	7,422	146,230	15	146,245
	1946	..	..	..	..	..	..	..	12,121	..	..	..	..	..	..	..	99,521
	1947	..	..	..	..	..	..	..	12,815	..	..	..	..	..	..	..	131,464
	1948	..	..	..	..	..	..	..	14,181	..	..	..	..	..	..	..	202,930
	1949	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	434,546
Grand Totals (Excluding West Indies)	1938	286,295	1,479,451	—	—	263,560	2,029,306	27,488	2,056,794	559,505	3,137,183	—	—	519,346	4,216,034	49,970	4,266,004
	1939	204,042	929,147	—	—	572,345	1,705,534	61,321	1,766,855	400,587	1,912,343	—	—	1,146,866	3,459,796	114,006	3,573,802
	1946	483,103	650,360	—	—	9,067	1,142,530	15,849	1,158,379	2,488,206	4,130,029	—	—	32,023	6,650,258	48,720	6,698,978
	1947	235,034	972,944	—	—	113,297	1,321,275	17,993	1,339,268	1,272,771	6,532,252	—	—	805,475	8,610,498	100,100	8,710,598
	1948	408,659	495,128	—	—	104,786	1,008,573	72,024	1,080,597	3,238,921	5,011,428	—	—	1,120,915	9,371,264	356,206	9,727,470
	1949	663,776	1,062,929	—	—	347,999	2,074,704	4,418	2,079,122	6,108,056	11,176,369	—	—	3,995,433	21,279,858	43,634	21,323,492

N.B.—Other Exporters (See Introductory Note 5) : Northern Rhodesia ; Gold Coast ; St. Lucia ; Fiji ; New Hebrides.

(1) Figures for 1946, 1947, 1948 and 1949, adjusted for under-valuation (See first paragraph of footnote (1), Table 9).

(2) There were no exports in 1947-9.

(3) There were no exports in 1938, 1939 and 1946-48.

(4) In 1946, most of Kenya and Uganda's inter-colonial exports (5,282 centals) went to Tanganyika ; in 1947 (1,161 centals) were exported to Tanganyika, and (10,000 centals) went to Hong Kong. In 1946, Tanganyika re-exported (5,060 centals) to "Other parts of the Sterling Area" and 150 centals to "Other Countries."

Tanganyika's inter-colonial exports went almost completely to Kenya and Uganda. Except for 1946 and 1947, the bulk of Kenya and Uganda's imports were from Tanganyika (in those two years, the imports from Belgian Congo, etc., exceeded those from Tanganyika). The re-exports of Kenya and Uganda were as follows :—

Centals

Year	*U.K.*	*Other parts of Sterling Area*	*Colonies*	*Other Countries*	*Total*
1938	4,475	18,183	4	2,472	25,134
1939	4,387	30,180	9	17,237	51,813
1946	1	8,054	456	1,041	9,552
1947	[illegible]	[illegible]	—	11,931	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE 47 : PIASSAVA

Colony, etc.	Year	Quantity (Tons) U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	Value (£) U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa																	
Nigeria	1938	130	—	156	—	257	543	—	543	1,855	—	2,344	—	3,690	7,889	—	7,889
	1939	324	—	122	—	270	716	—	716	4,457	—	1,648	—	3,188	9,293	—	9,293
	1946	1,106	81	1,165	—	126	2,478	—	2,478	41,068	5,436	50,297	—	5,642	102,443	—	102,443
	1947	266	96	414	—	119	895	—	895	10,601	5,781	18,879	—	5,392	40,653	—	40,653
	1948	271	167	379	—	300	1,117	—	1,117	10,534	6,290	15,029	—	11,701	43,554	—	43,554
	1949	250	58	475	—	219	1,002	—	1,002	11,352	2,427	22,313	—	10,970	47,062	—	47,062
Sierra Leone	1938	1,766	114	592	13	1,306	3,791	—	3,791	17,853	1,992	8,547	127	11,850	40,369	—	40,369
	1939	2,351	123	615	13	805	3,907	—	3,907	24,562	1,644	7,184	98	5,412	38,900	—	38,900
	1946	3,135	137	386	—	460	4,118	—	4,118	182,353	7,651	22,146	—	24,202	236,352	—	236,352
	1947	1,712	63	1,000	—	183	2,958	—	2,958	84,042	3,243	55,436	—	7,594	150,315	—	150,315
	1948	1,371	75	385	—	328	2,159	—	2,159	55,784	3,548	17,380	—	11,633	88,345	—	88,345
	1949	1,300	164	873	3	444	2,784	—	2,784	57,554	7,814	35,122	153	18,101	118,744	—	118,744
Totals	1938	1,896	114	748	13	1,563	4,334	—	4,334	19,708	1,992	10,891	127	15,540	48,258	—	48,258
	1939	2,675	123	737	13	1,075	4,623	—	4,623	29,019	1,644	8,832	98	8,600	48,193	—	48,193
	1946	4,241	218	1,551	—	586	6,596	—	6,596	223,421	13,087	72,443	—	29,844	338,795	—	338,795
	1947	1,978	159	1,414	—	302	3,853	—	3,853	94,643	9,024	74,315	—	12,986	190,968	—	190,968
	1948	1,642	242	764	—	628	3,276	—	3,276	66,318	9,838	32,409	—	23,334	131,899	—	131,899
	1949	1,550	222	1,348	3	663	3,786	—	3,786	68,906	10,241	57,435	153	29,071	165,806	—	165,806

N.B.—Small exports of bark for tanning from British Guiana have been excluded (See Introductory Note 5).

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TABLE 48: SISAL FIBRE AND TOW

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda ..	1938	9,440	526	1,248	2,743	15,871	29,828	3 (1)	29,831	144,967	8,055	19,514	39,835	250,955	463,326	36	463,362
	1939	15,409	865	2,544	759	11,597	31,174	2 (1)	31,176	237,357	12,808	38,284	10,382	173,706	472,537	6	472,543
	1946	17,147	1,866	1,552	4,500	352	25,417	193 (1)	25,610	611,261	49,070	49,669	169,788	16,130	895,918	2,348	898,266
	1947	18,336	4,531	264	1,825	—	24,956	4 (1)	24,960	1,039,484	253,525	9,913	92,206	—	1,395,128	246	1,395,374
	1948	24,865	3,774	852	1,836	490	31,817	5 (1)	31,822	1,939,049	289,853	56,468	134,332	36,931	2,456,633	301	2,456,934
	1949	11,944	3,495	5,172	761	12,919	34,291	—	34,291	1,010,066	298,449	417,488	68,439	1,125,505	2,919,947	—	2,919,947
Tanganyika	1938	25,513	712	11,543	7,859	53,627	99,254	2,146 (1)	101,400	362,706	8,793	164,645	106,237	760,592	1,402,973	22,219	1,425,192
	1939	30,538	1,562	13,605	5,341	36,926	87,972	5,138 (1)	93,110	403,649	20,559	212,763	63,481	459,351	1,159,803	63,674	1,223,477
	1946	71,334	10,724	9,491	19,932	—	111,481	40 (1)	111,521	2,490,194	429,397	268,002	728,182	7	3,915,782	623	3,916,405
	1947	56,891	10,559	815	23,302	100	91,667	4,188 (1)	95,855	3,228,686	601,835	38,741	1,344,676	4,741	5,218,679	250,764	5,469,443
	1948	77,267	8,994	13,097	15,736	1,805	116,899	193 (1)	117,092	6,031,391	656,037	926,330	1,187,636	121,306	8,922,700	7,761	8,930,461
	1949	48,501	8,841	28,690	1,641	44,841	132,514	—	132,514	4,113,153	720,917	2,283,586	140,276	3,853,300	11,111,232	—	11,111,232
Nyasaland Protectorate ..	1938	106	5	—	—	20	131	—	131	1,277	60	—	—	238	1,575	—	1,575
	1939	180	8	246	—	109	543	—	543	2,165	97	2,954	—	1,302	6,518	—	6,518
	1946	—	94	—	—	—	94	—	94	—	1,891	—	—	—	1,891	—	1,891
	1947	—	34	80	—	—	114	—	114	—	1,172	3,242	—	—	4,414	—	4,414
	1948	—	9	28	—	154	191	—	191	—	415	1,939	—	9,669	12,023	—	12,023
	1949	5	26	175	—	76	282	—	282	141	2,138	12,588	—	5,788	20,655	—	20,655
Totals	1938	35,059	1,243	12,791	10,602	69,518	129,213	2,149	131,362	508,950	16,908	184,159	146,072	1,011,785	1,867,874	22,255	1,890,129
	1939	46,127	2,435	16,395	6,100	48,632	119,689	5,140	124,829	643,171	33,464	254,001	73,863	634,359	1,638,858	63,680	1,702,538
	1946	88,481	12,684	11,043	24,432	352	136,992	233	137,225	3,101,455	480,358	317,671	897,970	16,137	4,813,591	2,971	4,816,562
	1947	75,227	15,124	1,159	25,127	100	116,737	4,192	120,929	4,268,170	856,532	51,896	1,436,882	4,741	6,618,221	251,010	6,869,231
	1948	102,132	12,777	13,977	17,572	2,449	148,907	198	149,105	7,970,440	946,305	984,737	1,321,968	167,906	11,391,356	8,062	11,399,418
	1949	60,450	12,362	34,037	2,402	57,836	167,087	—	167,087	5,123,360	1,021,504	2,713,662	208,715	4,984,593	14,051,834	—	14,051,834

(1) All of Kenya and Uganda's inter-colonial exports for these years went to Tanganyika. Except for a very small quantity in 1938, all of Tanganyika's inter-colonial exports went to Kenya and Uganda. Tanganyika's imports all came from Kenya and Uganda ; all of Kenya and Uganda's imports came from Tanganyika. There were no Tanganyika re-exports and none for Kenya and Uganda in the post-war years.

TABLE 49: OTHER FIBRES

		Quantity (Tons)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda (1) ..	1938	2	—	—	—	—	2	—	2	101	—	—	—	1	102	—	102
	1939	16	—	—	—	—	16	—	16	810	—	—	—	1	811	—	811
	1946	801	47	—	—	1	849	—	849	95,599	1,816	—	—	42	97,457	—	97,457
	1947	248	352	—	—	—	600	—	600	30,368	19,184	—	—	—	49,552	—	49,552
	1948	94	14	—	8	24	140	—	140	17,494	881	—	390	1,292	20,057	—	20,057
	1949	76	—	—	—	110	186	—	186	11,157	—	—	—	12,915	24,072	—	24,072
Tanganyika (2)	1938	10	—	—	—	4	14	—	14	330	—	—	—	130	460	—	460
	1939	8	—	—	—	7	15	—	15	296	—	—	—	228	524	—	524
	1946	45	19	54	—	16	134	7	141	3,774	1,701	4,320	—	1,317	11,112	684	11,796
	1947	18	—	25	—	31	74	7	81	1,459	66	2,200	—	3,358	7,083	706	7,789
	1948	179	10	21	1	164	375	99	474	24,831	713	1,007	25	27,192	53,768	5,759	59,527
	1949	33	11	—	—	44	88	—	88	2,613	1,095	—	—	2,485	6,193	—	6,193
West Africa																	
Nigeria (3)	1939	10	—	—	—	—	10	—	10	68	—	—	—	1	69	—	69
	1946	12	—	9	—	—	21	—	21	989	—	356	—	10	1,355	2	1,357
	1947	5	—	1	—	12	18	—	18	503	—	176	—	902	1,581	4	1,585
	1948	27	5	13	—	89	134	3	137	3,192	585	1,325	—	8,863	13,965	361	14,326
	1949	52	—	1	—	31	84	1	85	7,835	—	168	—	4,026	12,029	170	12,199
Eastern																	
Federation of Malaya and Singapore (4)	1946	—	673	761	—	1,481	2,915	194	3,109	—	42,025	26,020	—	79,399	147,444	10,916	158,360
	1947	52	394	1,650	—	4,683	6,779	301	7,080	4,741	24,471	119,393	—	272,370	420,975	12,781	433,756
	1948	—	115	—	—	158	273	1	274	—	12,025	—	—	14,044	26,069	126	26,195
	1949	10	—	—	—	—	10	1	11	175	—	—	—	7	182	130	312
North Borneo (5)	1938	..	..	..	..	..	..	..	1,261	..	..	..	..	..	..	..	30,712
	1939	..	..	..	..	..	..	..	2,086	..	..	..	..	..	..	..	49,044
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	584	..	..	..	..	..	..	..	45,778
	1949	..	..	..	..	..	..	..	802	..	..	..	..	..	..	..	90,133
Atlantic and Indian Oceans																	
Bahamas (5)	1938	—	—	99	—	—	99	13	112	—	—	1,095	—	—	1,095	180	1,275
	1939	—	—	115	—	—	115	—	115	—	—	950	—	—	950	—	950
	1946	—	—	165	—	—	165	—	165	—	—	6,180	—	—	6,180	—	6,180
	1947	146	—	64	—	—	210	—	210	7,247	—	3,131	—	—	10,378	—	10,378
	1948	251	—	4	—	—	255	—	255	13,284	—	125	—	—	13,409	—	13,409
	1949	122	—	40	—	—	162	—	162	3,115	—	1,271	—	—	4,386	—	4,386

TABLE 49: OTHER FIBRES—*(continued)*.

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Atlantic and Indian Oceans—*(continued)*																	
St. Helena (6)	1938	463	11	—	—	10	484	—	484	5,547	188	—	—	162	5,897	—	5,897
	1939	1,281	65	—	—	—	1,346	—	1,346	14,091	903	—	—	—	14,994	—	14,994
	1946	..	..	..	..	..	..	..	1,037	..	..	..	..	..	..	..	27,336
	1947	..	..	..	..	..	..	..	1,177	..	..	..	..	..	..	..	43,460
	1948	..	..	..	..	..	..	..	1,317	..	..	..	..	..	..	..	70,597
	1949	..	..	..	..	..	..	..	1,780	..	..	..	..	..	..	..	104,243
Mauritius (7)	1938	46	—	—	—	193	239	—	239	507	—	—	—	1,875	2,382	—	2,382
	1939	116	—	72	—	130	318	—	318	1,592	—	822	—	1,036	3,450	—	3,450
	1946	—	—	2	—	9	11	—	11	—	—	170	—	304	474	—	474
	1947	—	—	11	—	68	79	—	79	—	—	496	—	3,308	3,804	—	3,804
	1948	31	—	—	—	75	106	—	106	2,025	—	—	—	5,910	7,935	—	7,935
	1949	113	—	—	—	89	202	—	202	8,159	—	—	—	5,999	14,158	—	14,158

N.B.—Other Exporters (See Introductory Note 5) : Somaliland Protectorate ; Zanzibar Protectorate ; Gold Coast ; Cyprus ; British Guiana ; Jamaica ; Turks and Caicos Islands ; Trinidad and Tobago.

(1) Flax and Flax tow.
(2) Other than Sisal (fibre and tow) but including Raffia.
(3) Other than "Piassava," but including Kapok. There were no exports in 1938.
(4) Hemp and Sisal Hemp. There were no imports or exports in 1938 and 1939. The post-war imports of Malaya were as follows :—

Year	*Quantity (Tons)*	*Value (£)*
1946	2,385	111,356
1947	3,530	154,597
1948	44	4,391
1949	11	779

(5) Hemp.
(6) Hemp and Tow.
(7) Hemp—Aloe.

TABLE 50 : COPAL

Colony, etc.	Year	Quantity (Cwts.)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa Kenya and Uganda ..	1938	59	73	—	—	—	132	4 (3)	136	150	93	—	—	—	243	6	249
	1939	—	112	—	—	—	112	27 (3)	139	—	131	—	—	—	131	52	183
	1946	3,582	—	—	—	—	3,582	—	3,582	13,981	—	—	—	—	13,981	—	13,981
	1947	951	—	—	—	—	951	266 (3)	1,217	4,116	—	—	—	—	4,116	1,774	5,890
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	87	—	—	—	—	87	—	87	250	—	—	—	—	250	—	250
Tanganyika	1938	360	—	—	—	—	360	320 (3)	680	644	—	—	—	—	644	296	940
	1939	140	100	—	—	—	240	140 (3)	380	259	123	—	—	—	382	135	517
	1946(2)	2,300	1,060	—	—	200	3,560	3,960 (3)	7,520	9,413	4,170	—	—	1,250	14,833	14,262	29,095
	1947(2)	700	1,380	—	—	720	2,800	940 (3)	3,740	2,488	4,729	—	—	4,873	12,090	3,747	15,837
	1948	485	940	21	—	—	1,446	51 (3)	1,497	2,007	3,298	110	—	—	5,415	155	5,570
	1949	1,934	330	—	—	100	2,364	—	2,364	3,869	982	—	—	500	5,351	—	5,351
Totals	1938	419	73	—	—	—	492	324	816	794	93	—	—	—	887	302	1,189
	1939	140	212	—	—	—	352	167	519	259	254	—	—	—	513	187	700
	1946	5,882	1,060	—	—	200	7,142	3,960	11,102	23,394	4,170	—	—	1,250	28,814	14,262	43,076
	1947	1,651	1,380	—	—	720	3,751	1,206	4,957	6,604	4,729	—	—	4,873	16,206	5,521	21,727
	1948	485	940	21	—	—	1,446	51	1,497	2,007	3,298	110	—	—	5,415	155	5,570
	1949	2,021	330	—	—	100	2,451	—	2,451	4,119	982	—	—	500	5,601	—	5,601
Eastern Federation of Malaya and Singapore (1)	1938	591	2,954	2,764	891	1,813	9,013	—	9,013	1,528	5,112	5,492	2,038	1,834	16,004	—	16,004
	1939	2,900	4,387	3,540	838	1,804	13,469	—	13,469	6,329	7,509	5,261	1,381	1,801	22,281	—	22,281
	1946	450	1,463	500	—	200	2,613	—	2,613	2,206	15,033	1,387	—	748	19,374	—	19,374
	1947	6,200	3,486	897	100	22	10,705	—	10,705	43,435	23,309	5,401	502	166	72,813	—	72,813
	1948	7,310	4,546	389	—	50	12,295	—	12,295	50,240	29,457	2,945	—	385	83,027	—	83,027
	1949	4,390	4,491	964	—	18	9,863	137	10,000	24,117	22,158	5,133	—	143	51,551	1,228	52,779
Grand Totals	1938	1,010	3,027	2,764	891	1,813	9,505	324	9,829	2,322	5,205	5,492	2,038	1,834	16,891	302	17,193
	1939	3,040	4,599	3,540	838	1,804	13,821	167	13,988	6,588	7,763	5,261	1,381	1,801	22,794	187	22,981
	1946	6,332	2,523	500	—	400	9,755	3,960	13,715	25,600	19,203	1,387	—	1,998	48,188	14,262	62,450
	1947	7,851	4,866	897	100	742	14,456	1,206	15,662	50,039	28,038	5,401	502	5,039	89,019	5,521	94,540
	1948	7,795	5,486	410	—	50	13,741	51	13,792	52,247	32,755	3,055	—	385	88,442	155	88,597
	1949	6,411	4,821	964	—	118	12,314	137	12,451	28,236	23,140	5,133	—	643	57,152	1,228	58,380

N.B.—Other Exporters (See Introductory Note 5) : Gold Coast ; Nigeria ; Sierra Leone ; N. Borneo.

(1) Imports of Malaya were as follows :—

Year	Quantity (Cwts)	Value (£)
1938	14,446	15,715
1939	19,634	18,867
1946	812	3,011
1947	7,447	26,347
1948	11,674	46,797
1949	6,369	20,968

(2) " Copal and Others N.E.S."

(3) Most of Kenya and Uganda's inter-colonial exports went to Hong Kong. In the pre-war years, most of the inter-colonial exports of Tanganyika went to Zanzibar ; in the post-war years nearly all went to Kenya and Uganda. Except in 1947 and 1948, Kenya and Uganda had no re-export trade ; in 1947 it was 280 cwts (Hong Kong) and in 1948 97 cwts (U.K.) and 61 cwts (other parts of Sterling Area).

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TABLE 51 : DAMAR

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																	
Federation of Malaya and Singapore (1)	1938	21,188	55,167	68,796	5,396	21,625	172,172	699	172,871	21,023	21,360	61,688	6,817	18,686	129,574	355	129,929
	1939	28,666	59,846	92,874	7,118	30,511	219,015	1,122	220,137	27,886	25,603	71,803	7,985	27,008	160,285	654	160,939
	1946	5,616	36,130	24,676	114	2,987	69,523	2,550	72,073	31,250	71,214	102,888	1,200	13,751	220,303	5,026	225,329
	1947	9,788	22,346	70,677	1,864	6,883	111,558	1,214	112,772	44,575	44,462	191,097	5,755	28,520	314,409	3,324	317,733
	1948	11,580	31,311	38,940	770	8,828	91,429	411	91,840	37,049	49,628	86,223	2,455	29,664	205,019	1,019	206,038
	1949	8,257	27,591	17,393	900	23,206	77,347	983	78,330	33,965	37,651	48,433	1,717	85,574	207,340	3,818	211,158
North Borneo	1938	..	..	..	..	..	..	..	33,706	..	..	..	..	..	..	..	8,639
	1939	..	..	..	..	..	..	..	35,061	..	..	..	..	..	..	..	8,920
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	17,708	..	..	..	..	..	..	..	19,071
	1949	..	..	..	..	..	..	..	12,772	..	..	..	..	..	..	..	17,095
Sarawak	1938	..	..	..	..	..	..	..	19,220	..	..	..	..	..	..	..	5,247
	1939	..	..	..	..	..	..	..	37,781	..	..	..	..	..	..	..	10,801
	1946	..	..	..	..	..	..	..	18,262	..	..	..	..	..	..	..	14,273
	1947	..	..	..	..	..	..	..	37,676	..	..	..	..	..	..	..	56,833
	1948	80	—	—	—	—	80	33,714(2)	33,794	..	—	—	—	—	..	..	45,449
	1949	—	—	—	—	—	—	39,608(2)	39,608	—	—	—	—	—	—	48,597	48,597

(1) Imports of Malaya were as follows :—

Year	*Quantity (Cwts.)*	*Value (£)*
1938	128,414	76,702
1939	181,648	105,680
1946	68,661	165,499
1947	111,599	200,988
1948	101,049	127,642
1949	90,829	156,659

(2) Singapore.

TABLE 52: GUM ARABIC

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Tanganyika	1938	80	23,800	—	100	780	24,760	40	24,800	116	27,428	—	107	746	28,397	55	28,452
	1939	960	20,960	—	540	3,000	25,460	380	25,840	1,024	21,541	—	616	4,088	27,269	472	27,741
	1946	—	19,520	—	—	—	19,520	3,760	23,280	—	53,640	—	—	—	53,640	9,227	62,867
	1947	40	24,060	—	—	1,600	25,700	1,640	27,340	110	60,847	5	—	4,000	64,962	4,784	69,746
	1948	638	26,017	206	—	—	26,861	1,441	28,302	1,464	67,222	553	—	—	69,239	3,541	72,780
	1949	600	13,581	—	—	530	14,711	503	15,214	1,590	34,306	—	—	1,293	37,189	1,258	38,447
West Africa																	
Nigeria	1938	5,363	—	1,044	—	717	7,124	4	7,128	5,922	—	781	—	1,140	7,843	5	7,848
	1939	15,996	—	282	—	1,397	17,675	8	17,683	16,113	—	129	—	2,029	18,271	5	18,276
	1946	44,941	1,806	16,962	—	200	63,909	24	63,933	102,498	4,839	38,648	—	842	146,827	44	146,871
	1947	17,850	600	2,415	—	200	21,065	5	21,070	53,870	1,930	7,660	—	841	64,301	8	64,309
	1948	10,329	1,821	1,191	—	—	13,341	6	13,347	31,459	5,683	3,010	—	1	40,153	25	40,178
	1949	8,663	2,614	5,506	—	—	16,783	6	16,789	24,756	7,205	12,134	—	—	44,095	19	44,114
Totals	1938	5,443	23,800	1,044	100	1,497	31,884	44	31,928	6,038	27,428	781	107	1,886	36,240	60	36,300
	1939	16,956	20,960	282	540	4,397	43,135	388	43,523	17,137	21,541	129	616	6,117	45,540	477	46,017
	1946	44,941	21,326	16,962	—	200	83,429	3,784	87,213	102,498	58,479	38,648	—	842	200,467	9,271	209,738
	1947	17,890	24,660	2,415	—	1,800	46,765	1,645	48,410	53,980	62,777	7,665	—	4,841	129,263	4,792	134,055
	1948	10,967	27,838	1,397	—	—	40,202	1,447	41,649	32,923	72,905	3,563	—	1	109,392	3,566	112,958
	1949	9,263	16,195	5,506	—	530	31,494	509	32,003	26,346	41,511	12,134	—	1,293	81,284	1,277	82,561

N.B.—Small exports from Kenya and Uganda have been excluded (See Introductory Note 5).

Somaliland Protectorate also exports Gum Arabic, but separate figures are not available (See Table 56).

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TABLE 53 : GUTTA PERCHA

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																	
Federation of Malaya and Singapore (1)	1938	2,643	—	29,050	80	2,736	34,509	—	34,509	22,043	—	70,466	203	11,357	104,069	—	104,069
	1939	4,124	7	33,059	40	4,295	41,525	—	41,525	34,034	21	73,537	118	36,602	144,312	—	144,312
	1946	282,307	—	3,494	—	5	285,806	—	285,806	1,504,880	—	87,167	—	191	1,592,238	—	1,592,238
	1947	2,533	—	9,473	—	587	12,593	—	12,593	69,125	—	213,467	—	16,468	299,060	—	299,060
	1948	5,392	2,148	5,587	20	111	13,258	—	13,258	111,747	50,524	90,581	141	1,374	254,367	—	254,367
	1949	5,214	276	4,101	—	1,094	10,685	—	10,685	114,246	6,176	42,747	—	24,496	187,665	—	187,665
Sarawak	1938	..	..	..	..	..	..	..	26	..	..	..	..	..	..	..	118
	1939	..	..	..	..	..	..	..	108	..	..	..	..	..	..	..	917
	1946	..	..	..	..	..	..	..	138	..	..	..	..	..	..	..	3,739
	1947	..	..	..	..	..	..	..	2,853	..	..	..	..	..	..	..	82,987
	1948	..	..	..	..	..	..	..	1,595	..	..	..	..	..	..	..	39,478
	1949	..	..	..	..	..	..	..	994	..	..	..	..	..	..	..	26,855

N.B.—Small exports from North Borneo have been excluded (See Introductory Note 5).

(1) Imports of Malaya were as follows :—

Year	*Quantity (Cwts.)*	*Value (£)*
1938	23,322	50,274
1939	19,906	42,910
1946	1,490	25,644
1947	9,935	165,673
1948	7,259	72,363
1949	8,512	66,941

TABLE 54 : JELUTONG

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																	
Brunei	1938	..	..	..	..	..	..	..	3,324	..	..	..	..	..	..	..	9,561
	1939	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1946	..	..	..	..	..	..	..	248	..	..	..	..	..	..	..	863
	1947	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1949	..	..	..	..	..	..	..	2,226	..	..	..	..	..	..	..	13,432
Sarawak	1938	..	..	..	..	..	..	..	40,099	..	..	..	..	..	..	..	86,315
	1939	..	..	..	..	..	..	..	24,734	..	..	..	..	..	..	..	46,074
	1946	..	..	..	..	..	..	..	4,437	..	..	..	..	..	..	..	14,502
	1947	..	..	..	..	..	..	..	60,099	..	..	..	..	..	..	..	315,866
	1948	..	..	9,961	..	..	..	37,902(1)	48,014	..	..	..	..	..	..	..	259,989
	1949	718	—	8,049	—	—	8,767	16,557(1)	25,324	..	—	..	—	—	..	..	137,978

N.B.—Malaya is a net importer having a very large entrepôt trade. Small exports from N. Borneo have been excluded (See Introductory Note 5).

(1) Singapore.

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TABLE 55: RUBBER, RAW (DRY, CREPE AND LATEX)

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda ..	1938	606	—	5	—	3	614	50	664	33,559	—	325	—	186	34,070	2,789	36,859
	1939	611	44	17	—	2	674	54	728	34,563	3,177	1,367	—	153	39,260	2,996	42,256
	1946	45	589	—	—	5	639	—	639	5,573	50,875	—	—	700	57,148	—	57,148
	1947	125	39	—	—	25	189	—	189	13,309	4,789	—	—	3,079	21,177	—	21,177
	1948	148	11	4	—	—	163	12	175	16,195	1,185	432	—	—	17,812	544	18,356
	1949	12	—	—	—	15	27	17	44	1,351	—	—	—	1,600	2,951	1,916	4,867
Tanganyika	1938	—	—	—	—	15	15	4	19	—	—	—	—	492	492	190	682
	1939	2	—	—	—	2	4	3	7	114	—	—	—	87	201	119	320
	1946	13	972	—	—	20	1,005	14	1,019	1,585	197,083	—	—	4,441	203,109	2,471	205,580
	1947	42	—	—	—	—	42	7	49	8,411	—	—	—	—	8,411	475	8,886
	1948	54	—	—	—	—	54	—	54	10,326	—	—	—	—	10,326	28	10,354
	1949	19	—	—	—	—	19	—	19	3,780	—	—	—	—	3,780	—	3,780
Nyasaland Protectorate ..	1938	71	—	—	—	—	71	—	71	3,316	—	—	—	—	3,316	—	3,316
	1939	57	2	—	—	—	59	—	59	2,672	97	—	—	—	2,769	—	2,769
	1946	—	35	—	—	—	35	—	35	—	4,377	—	—	—	4,377	—	4,377
	1947	—	75	—	—	—	75	—	75	—	9,054	—	—	—	9,054	—	9,054
	1948	10	45	—	—	—	55	—	55	1,203	5,079	—	—	—	6,282	—	6,282
	1949	—	45	—	—	—	45	—	45	—	5,295	—	—	—	5,295	—	5,295
Totals	1938	677	—	5	—	18	700	54	754	36,875	—	325	—	678	37,878	2,979	40,857
	1939	670	46	17	—	4	737	57	794	37,349	3,274	1,367	—	240	42,230	3,115	45,345
	1946	58	1,596	—	—	25	1,679	14	1,693	7,158	252,335	—	—	5,141	264,634	2,471	267,105
	1947	167	114	—	—	25	306	7	313	21,720	13,843	—	—	3,079	38,642	475	39,117
	1948	212	56	4	—	—	272	12	284	27,724	6,264	432	—	—	34,420	572	34,992
	1949	31	45	—	—	15	91	17	108	5,131	5,295	—	—	1,600	12,026	1,916	13,942
West Africa																	
Gold Coast	1938	526	—	2	—	5	533	—	533	29,035	—	53	—	207	29,295	—	29,295
	1939	615	—	20	—	43	678	—	678	30,998	—	617	—	1,523	33,138	—	33,138
	1946	1,038	—	—	—	—	1,038	—	1,038	106,340	—	—	—	—	106,340	—	106,340
	1947	377	—	—	—	—	377	—	377	35,528	—	—	—	—	35,528	—	35,528
	1948	439	—	15	—	—	454	—	454	37,727	—	1,540	—	—	39,267	—	39,267
	1949	390	—	—	—	—	390	—	390	33,073	—	—	—	—	33,073	—	33,073
Nigeria	1938	1,304	—	—	—	1,831	3,135	—	3,135	50,276	—	—	—	85,521	135,797	—	135,797
	1939	1,675	—	90	—	1,059	2,824	—	2,824	67,809	—	6,459	—	53,794	128,062	46	128,108
	1946	11,438	—	10	—	—	11,448	—	11,448	1,402,377	—	1,418	—	—	1,403,795	—	1,403,795
	1947	6,093	—	10	10	1,332	7,445	—	7,445	547,279	—	1,983	1,177	126,466	676,905	—	676,905
	1948	6,012	38	774	10	1,185	8,019	—	8,019	520,305	3,368	81,745	1,144	112,478	719,040	—	719,040
	1949	5,390	133	30	—	1,305	6,858	—	6,858	467,275	11,225	3,070	—	109,551	591,121	—	591,121
Sierra Leone	1938	—	—	—	—	—	—	—	—	17	—	—	—	—	17	—	17
	1939	3	—	—	—	—	3	—	3	110	—	—	—	—	110	—	110
	1946	87	—	—	—	—	87	—	87	12,221	—	—	—	—	12,221	—	12,221
	1947	9	—	—	—	—	9	—	9	1,034	—	—	—	—	1,034	—	1,034
	1948	3	—	—	—	—	3	—	3	171	—	—	—	—	171	—	171
	1949	3	—	—	—	—	3	—	3	250	—	—	—	—	250	—	250
Totals	1938	1,830	—	2	—	1,836	3,668	—	3,668	79,328	—	53	—	85,728	165,109	—	165,109
	1939	2,293	—	110	—	1,102	3,505	—	3,505	98,917	—	7,076	—	55,317	161,310	46	161,356
	1946	12,563	—	10	—	—	12,573	—	12,573	1,520,938	—	1,418	—	—	1,522,356	—	1,522,356
	1947	6,479	—	10	10	1,332	7,831	—	7,831	583,841	—	1,983	1,177	126,466	713,467	—	713,467
	1948	6,454	38	789	10	1,185	8,476	—	8,476	558,203	3,368	83,285	1,144	112,478	758,478	—	758,478
	1949	5,783	133	30	—	1,305	7,251	—	7,251	500,598	11,225	3,070	—	109,551	624,444	—	624,444

TABLE 55: RUBBER, RAW (DRY, CREPE AND LATEX)—(*continued*).

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																	
Federation of Malaya and Singapore (1)	1938	99,219	12,409	214,691	22,656	176,293	525,268	1,643	526,911	5,919,258	755,599	13,009,005	1,373,179	10,689,609	31,746,650	101,061	31,847,711
	1939	74,060	20,657	299,972	30,758	125,591	551,038	2,284	553,322	5,689,444	1,600.361	23,925,541	2,442,967	9,811,248	43,469,561	180,065	43,649,626
	1946	195,226	17,229	257,603	12,341	33,097	515,496	6,349	521,845	22,191,218	2,088,173	27,530,197	1,278,829	3,915,287	57,003,704	727,015	57,730,719
	1947	162,948	40,192	456,489	41,790	229,761	931,180	22,123	953,303	16,545,600	3,877,554	41,636,456	4,121,339	22,665,220	88,846,169	2,278,842	91,125,011
	1948	173,095	49,419	371,395	36,340	336,822	967,071	12,044	979,115	19,414,838	5,062,527	36,344,127	3,603,659	36,215,760	100,640,911	1,129,025	101,769,936
	1949	164,363	48,444	265,420	32,443	365,215	875,885	23,326	899,211	16,352,269	4,490,780	23,976,613	2,880,392	34,923,959	82,624,013	2,180,554	84,804,567
West Indies																	
British Guiana (2)	1946	—	—	97	—	—	97	—	97	—	—	32,540	—	—	32,540	—	32,540
	1947	—	—	51	—	—	51	—	51	—	—	16,896	—	—	16,896	—	16,896
Trinidad and Tobago ..	1938	54	—	17	—	—	71	—	71	3,786	—	952	—	—	4,738	—	4,738
	1939	40	—	54	—	—	94	—	94	2,307	—	3,792	—	—	6,099	—	6,099
	1946	—	—	236	—	—	236	—	236	—	—	77,076	—	—	77,076	—	77,076
	1947	3	—	142	—	—	145	—	145	284	—	45,820	—	—	46,104	—	46,104
	1948	3	—	—	—	—	3	—	3	483	—	—	—	—	483	—	483
	1949	1	—	—	—	—	1	—	1	123	—	—	—	—	123	—	123
Totals	1938	54	—	17	—	—	71	—	71	3,786	—	952	—	—	4,738	—	4,738
	1939	40	—	54	—	—	94	—	94	2,307	—	3,792	—	—	6,099	—	6,099
	1946	—	—	333	—	—	333	—	333	—	—	109,616	—	—	109,616	—	109,616
	1947	3	—	193	—	—	196	—	196	284	—	62,716	—	—	63,000	—	63,000
	1948	3	—	—	—	—	3	—	3	483	—	—	—	—	483	—	483
	1949	1	—	—	—	—	1	—	1	123	—	—	—	—	123	—	123
Western Pacific																	
Fiji	1938	—	—	1	—	—	1	—	1	—	—	20	—	—	20	—	20
	1939	—	2	12	—	—	14	—	14	—	49	285	—	—	334	—	334
	1946	—	72	—	—	—	72	—	72	—	12,217	24	—	—	12,241	—	12,241
	1947	—	27	—	—	—	27	—	27	—	3,306	—	—	—	3,306	—	3,306
	1948	—	3	35	—	—	38	—	38	—	215	2,258	—	—	2,473	—	2,473
	1949	—	—	—	2	—	2	—	2	—	—	—	140	—	140	—	140
Grand Totals	1938	101,780	12,409	214,716	22,656	178,147	529,708	1,697	531,405	6,039,247	755,599	13,010,355	1,373,179	10,776,015	31,954,395	104,040	32,058,435
	1939	77,063	20,705	300,165	30,758	126,697	555,388	2,341	557,729	5,828,017	1,603,684	23,938,061	2,442,967	9,866,805	43,679,534	183,226	43,862,760
	1946	207,847	18,897	257,946	12,341	33,122	530,153	6,363	536,516	23,719,314	2,352.725	27,641,255	1,278,829	3,920,428	58,912,551	729,486	59,642,037
	1947	169,597	40,333	456,692	41,800	231,118	939,540	22,130	961,670	17,151,445	3,894,703	41,701,155	4,122,516	22,794,765	89,664,584	2,279,317	91,943,901
	1948	179,764	49,516	372,223	36,350	338,007	975,860	12,056	987,916	20,001,248	5,072,374	36,430,102	3,604,803	36,328,238	101,436,765	1,129,597	102,566,362
	1949	170,178	48,622	265,450	32,445	366,535	883,230	23,343	906,573	16,858,121	4,507,300	23,979,683	2,880,532	35,035,110	83,260,746	2,182,470	85,443,216

TABLE 55: RUBBER, RAW (DRY, CREPE AND LATEX)—(*continued*).

N.B.—Small exports from Zanzibar Protectorate have been excluded (See Introductory Note 5).

(1) The exports of Brunei, North Borneo and Sarawak have been excluded as they are to a large extent included in the Malayan figures shown below :—

Year	Exports from				Imports into Federation of Malaya and Singapore from					
	Brunei	*North Borneo*	*Sarawak*	*Totals*	*Brunei*	*North Borneo*	*Sarawak*	*Total*	*Others*	*Totals*
					Quantity (tons)					
1938	1,240	9,512	17,988	28,740	1,196	4,130	17,772	23,098	133,003	156,101
1939	(1,300)	11,864	24,031	(37,200)	1,123	5,068	23,760	29,951	147,899	177,850
1946	872	3,965	23,521	28,358	458	3,713	19,057	23,228	164,062	187,290
1947	1,799	(15,000)	35,550	(52,300)	1,608	9,513	33,259	44,380	269,320	313,700
1948	2,037	20,087	39,884	62,008	1,610	12,456	33,445	47,511	252,960	300,471
1949	1,638	19,528	38,902	60,068	1,454	13,340	30,946	45,740	174,402	220,142
					Value (£)					
1938	72,749	552,731	929,709	1,555,189	69,536	239,852	989,497	1,298,885	7,372,968	8,671,853
1939	..	939,702	1,794,908	..	89,127	398,492	1,847,564	2,335,183	10,858,556	13,193,739
1946	91,134	326,277	2,253,597	2,671,008	45,634	390,881	1,921,525	2,358,040	12,645,992	15,004,032
1947	149,591	1,312,500	3,043,202	4,505,293	143,716	856,236	2,940,841	3,940,793	17,003,408	20,944,201
1948	186,041	2,159,235	4,028,841	6,374,117	157,415	1,244,018	3,101,804	4,503,237	15,567,184	20,070,421
1949	142,430	1,859,739	3,680,297	5,682,466	130,840	1,225,228	2,634,386	3,990,454	10,431,602	14,422,056

It should be noted that exports of Brunei, North Borneo and Sarawak and the Malayan imports given immediately above, include wet rubber, whereas the Malayan exports shown in the main table relate to dry rubber only as wet rubber is not exported.

( ) = Estimated figures.

(2) There were no re-exports in 1938, 1939, 1948 and 1949.

E. GUMS AND RESINS

TABLE 56: OTHER GUMS AND RESINS

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Balata																	
British Guiana	1938	4,326	—	—	—	—	4,326	8	4,334	34,050	—	—	—	—	34,050	59	34,109
	1939	4,860	—	—	—	—	4,860	14	4,874	40,422	—	—	—	—	40,422	85	40,507
	1946	7,397	—	—	—	—	7,397	12	7,409	126,771	—	—	—	—	126,771	177	126,948
	1947	5,353	—	—	—	—	5,353	9	5,362	99,948	—	—	—	—	99,948	181	100,129
	1948	7,271	—	—	—	—	7,271	12	7,283	149,125	—	—	—	—	149,125	258	149,383
	1949	5,617	—	712	—	—	6,329	16	6,345	110,555	—	13,482	—	—	124,037	343	124,380
Chicle																	
British Honduras	1938	1,350	—	4,227	2,284	—	7,861	—	7,861	12,379	—	38,967	20,513	—	71,859	—	71,859
	1939	366	—	6,119	811	—	7,296	—	7,296	4,149	—	57,476	7,991	—	69,616	—	69,616
	1946	—	—	6,145	4,109	—	10,254	—	10,254	—	—	125,668	125,985	—	251,653	—	251,653
	1947	1,747	—	7,314	3,624	—	12,685	—	12,685	47,282	—	166,615	111,446	—	325,343	—	325,343
	1948	2,085	—	1,254	5,991	—	9,330	—	9,330	53,822	—	22,515	144,865	—	221,202	—	221,202
	1949	1,752	—	4,200	225	—	6,177	—	6,177	42,573	—	79,197	4,702	—	126,472	—	126,472
Dragon's Blood																	
Federation of Malaya and Singapore (1)	1938	69	—	191	—	—	260	147	407	840	—	1,609	—	—	2,449	1,140	3,589
	1939	109	—	338	—	—	447	170	617	1,507	—	2,992	—	1	4,500	1,391	5,891
	1946	44	—	13	—	—	57	593	650	2,764	—	350	—	—	3,114	5,759	8,873
	1947	473	—	66	—	18	557	204	761	23,345	—	1,598	—	55	24,998	3,943	28,941
	1948	50	—	177	—	—	227	47	274	2,547	—	6,269	—	—	8,816	1,697	10,513
	1949	102	—	18	—	—	120	171	291	4,817	—	494	—	—	5,311	4,729	10,040
Others																	
Nigeria (2)	1938	2,693	—	3,896	—	644	7,233	—	7,233	2,367	—	4,089	—	1,223	7,679	—	7,679
	1939	349	—	752	—	754	1,855	—	1,855	864	—	1,607	—	1,799	4,270	—	4,270
	1946	101	—	1,337	—	—	1,438	—	1,438	106	1	4,005	—	—	4,112	2	4,114
	1947	1,036	1	1,311	—	—	2,348	1	2,349	3,174	2	7,161	—	—	10,337	12	10,349
	1948	53	—	1,361	—	40	1,454	9	1,463	36	—	8,980	—	172	9,188	10	9,198
	1949	17	—	2,197	—	—	2,214	—	2,214	127	—	12,352	—	—	12,479	—	12,479
Fiji (3)	1938	710	1,490	3,923	21	365	6,509	—	6,509	832	1,757	4,595	24	434	7,642	—	7,642
	1939	1,853	1,592	1,891	—	285	5,621	—	5,621	2,177	1,864	2,213	—	334	6,588	—	6,588
Somaliland Protectorate (4)	1938	—	—	—	—	—	—	11,698	11,698	—	—	—	—	—	—	16,198	16,198
	1939	—	—	—	—	—	—	10,861	10,861	—	—	—	—	—	—	14,484	14,484
	1946	—	—	—	—	—	—	8,760	8,760	—	—	—	—	—	—	18,899	18,899
	1947	—	—	—	—	—	—	8,535	8,535	—	—	—	—	—	—	20,088	20,088
	1948	—	—	—	—	—	—	7,354	7,354	—	—	—	—	—	—	15,339	15,339
	1949	—	—	—	—	—	—	8,758	8,758	—	—	—	—	—	—	10,937	10,937

TABLE 56: OTHER GUMS AND RESINS—(*continued*).

N.B.—British Guiana exported small quantities of gums and resins in addition to Balata. St. Lucia exported small quantities of incense. Malaya has a substantial entrepôt trade in Benjamin, Sticklac and other gums ; its imports and exports were as follows :—

Year	*Benjamin*				*Sticklac*				*Others*			
	Imports		*Exports*		*Imports*		*Exports*		*Imports*		*Exports*	
	Quantity (*Cwts.*)	*Value* (£'000)	*Quantity* (*Cwts.*)	*Value* (£'000)	*Quantity* (*Cwts.*)	*Value* (£'000)	*Quantity* (*Cwts.*)	*Value* (£'000)	*Quantity* (*Cwts.*)	*Value* (£'000)	*Quantity* (*Cwts.*)	*Value* (£'000)
1938	23,650	51	18,438	42	37,266	21	36,837	22	14,920	18	4,178	6
1939	23,187	48	19,646	41	87,985	48	88,682	53	15,906	22	3,221	6
1946	49,014	453	39,708	403	14,589	39	17,291	49	7,670	59	7,467	35
1947	29,732	252	27,429	279	66,285	157	40,486	132	7,513	46	4,750	27
1948	41,112	274	33,484	275	57,235	302	46,022	234	13,936	61	6,933	27
1949	8,171	44	14,777	160	9,572	59	6,576	42	27,579	119	6,718	37

(1) Imports of Malaya were as follows :—

Year	*Quantity* (*Cwts.*)	*Value* (£'000)
1938	233	2
1939	337	2
1946	309	3
1947	230	6
1948	194	5
1949	321	7

(2) Other than Gum Arabic and Copal.

(3) " Gum." Not separately enumerated in 1946-9.

(4) Gum Arabic, Frankincense and Myrrh (See Footnote to Table 50). Exports go to Aden for subsequent re-export.

TABLE 57 : CUTCH

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																	
Federation of Malaya and Singapore (1)	1938	422	47	1,366	52	1,769	3,656	261	3,917	6,145	633	19,791	814	28,211	55,594	4,090	59,684
	1939	519	107	2,180	114	1,411	4,331	188	4,519	7,800	1,472	32,602	1,743	22,717	66,334	2 970	69,304
	1946	—	—	—	—	80	80	531	611	—	—	—	—	9,622	9,622	30,685	40,307
	1947	—	—	—	—	240	240	399	639	—	—	—	—	17,054	17,054	18,973	36,027
	1948	—	—	4	—	444	448	115	563	—	—	266	—	33,911	34,177	10,329	44,506
	1949	—	1	2	—	46	49	59	108	—	142	93	—	1,847	2,082	3,588	5,670
Brunei	1938	..	..	..	..	..	..	..	1,668	..	..	..	..	..	..	..	17,776
	1939	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1946	..	..	..	..	..	..	..	28	..	..	..	..	..	..	..	257
	1947	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1949	..	..	..	..	..	..	..	29	..	..	..	..	..	..	..	2,212
North Borneo	1938	..	..	..	..	..	..	..	2,458	..	..	..	..	..	..	..	31,660
	1939	..	..	..	..	..	..	..	4,066	..	..	..	..	..	..	..	54,951
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	2,252	..	..	..	..	..	..	..	78,866
	1949	..	..	..	..	..	..	..	3,815	..	..	..	..	..	..	..	133,511
Sarawak	1938	..	..	..	..	..	..	..	2,778	..	..	..	..	..	..	..	50,921
	1939	..	..	..	..	..	..	..	3,166	..	..	..	..	..	..	..	59,214
	1946	..	..	..	..	..	..	..	103	..	..	..	..	..	..	..	3,398
	1947	..	..	..	..	..	..	..	350	..	..	..	..	..	..	..	22,099
	1948	70	..	50	..	890	1,010	120	1,130	..	..	..	..	..	..	..	74,383
	1949	—	—	—	—	2,143	2,143	—	2,143	—	—	—	—	172,697	172,697	—	172,697

(1) Imports of Malaya were as follows :—

Year	*Quantity (Tons)*	*Value (£)*
1938	4,482	64,227
1939	3,825	54,817
1946	179	9,054
1947	216	11,847
1948	542	40,770
1949	25	1,231

F. TANNING MATERIALS

TABLE 58: GAMBIER

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																	
Federation of Malaya and Singapore (1)																	
(*a*) Block	1938	149	—	127	—	55	331	—	331	2,391	—	1,978	—	925	5,294	5	5,299
	1939	182	—	200	—	53	435	—	435	3,515	—	3,419	—	900	7,834	9	7,843
	1946	120	1	92	—	162	375	78	453	11,410	89	6,300	—	20,699	38,498	5,118	43,616
	1947	136	58	62	—	822	1,078	62	1,140	9,192	5,194	4,074	—	52,697	71,157	4,701	75,858
	1948	4	11	27	—	217	259	2	261	235	1,060	1,760	—	16,566	19,621	134	19,755
	1949	—	7	—	—	5	12	—	12	—	572	—	—	684	1,256	25	1,281
(*b*) Cube	1938	44	1,855	608	2	816	3,325	76	3,401	1,086	40,831	14,607	53	22,281	78,858	2,027	80,885
	1939	105	1,870	722	—	782	3,479	125	3,604	2,656	37,045	17,912	—	22,355	79,968	3,711	83,679
	1946	—	331	—	—	511	842	51	893	—	52,274	—	—	92,173	144,447	6,444	150,891
	1947	—	146	11	—	389	546	68	614	—	21,014	1,765	—	65,968	88,747	8,480	97,227
	1948	—	420	—	—	185	605	81	686	—	53,343	—	—	29,710	83,053	9,662	92,715
	1949	74	271	35	—	238	618	65	683	7,641	26,079	3,294	—	24,179	61,193	6,903	68,096
(*c*) Round	1938	—	204	—	—	88	292	2	294	—	11,867	—	—	4,818	16,685	59	16,744
	1939	—	248	—	—	75	323	1	324	—	13,469	—	—	3,898	17,367	59	17,426
	1946	24	180	—	—	432	636	14	650	1,707	37,802	—	—	71,082	110,591	825	111,416
	1947	—	113	1	—	469	583	31	614	—	24,451	44	—	102,018	126,513	4,842	131,355
	1948	—	245	—	—	274	519	4	523	—	52,948	—	—	55,072	108,020	769	108,789
	1949	—	34	—	—	66	100	10	110	—	9,362	—	—	11,790	21,152	1,180	22,332

N.B.—Small Exports from North Borneo have been excluded (See Introductory Note 5).

(1) Imports of Malaya were as follows :—

Year	*Block*		*Cube*		*Round*	
	Quantity (Tons)	*Value (£)*	*Quantity (Tons)*	*Value (£)*	*Quantity (Tons)*	*Value (£)*
1938	203	2,313	1,904	35,711	286	16,555
1939	251	2,745	2,180	39,882	359	18,485
1946	865	82,120	859	100,586	698	107,994
1947	199	13,336	503	59,438	510	85,651
1948	150	11,973	515	57,475	513	85,366
1949	55	5,165	400	31,842	57	9,288

TABLE 59: MANGROVE BARK

		Quantity (Tons)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda ..	1938	60	—	—	—	—	60	—	60	210	—	—	—	—	210	—	210
	1939	—	1	118	—	249	368	65	433	—	2	395	—	732	1,129	183	1,312
	1946	—	242	—	—	86	328	—	328	—	3,045	—	—	1,309	4,354	—	4,354
	1947	150	5	454	—	9	618	—	618	1,700	55	4,678	—	121	6,554	—	6,554
	1948	123	—	584	—	330	1,037	—	1,037	1,450	—	6,528	—	3,895	11,873	—	11,873
	1949	—	—	—	—	292	292	—	292	—	—	—	—	4,321	4,321	—	4,321
Tanganyika	1938	541	—	1,399	—	978	2,918	—	2,918	1,697	—	4,122	—	3,067	8,886	—	8,886
	1939	376	—	2,849	—	275	3,500	35	3,535	1,260	—	9,059	—	970	11,289	116	11,405
	1946	—	35	4,925	—	430	5,390	100	5,490	—	491	54,545	—	4,515	59,551	1,075	60,626
	1947	300	—	2,838	—	270	3,408	—	3,408	2,900	—	32,170	—	3,860	38,930	—	38,930
	1948	100	—	1,539	—	50	1,689	—	1,689	997	—	15,387	—	537	16,921	—	16,921
	1949	200	—	1,000	—	246	1,446	—	1,446	2,500	—	11,963	—	2,548	17,011	—	17,011
Zanzibar Protectorate ..	1938	—	1	138	—	173	312	—	312	—	5	474	—	623	1,102	—	1,102
	1939	276	4	1,135	—	327	1,742	—	1,742	709	13	2,862	—	817	4,401	—	4,401
	1946	98	5,108	6,047	—	445	11,698	—	11,698	982	68,186	64,119	—	4,924	138,211	—	138,211
	1947	336	48	4,364	—	75	4,823	—	4,823	3,661	484	45,682	—	835	50,662	—	50,662
	1948	—	—	2,210	—	85	2,295	—	2,295	—	—	23,498	—	920	24,418	—	24,418
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	1938	601	1	1,537	—	1,151	3,290	—	3,290	1,907	5	4,596	—	3,690	10,198	—	10,198
	1939	652	5	4,102	—	851	5,610	100	5,710	1,969	15	12,316	—	2,519	16,819	299	17,118
	1946	98	5,385	10,972	—	961	17,416	100	17,516	982	71,722	118,664	—	10,748	202,116	1,075	203,191
	1947	786	53	7,656	—	354	8,849	—	8,849	8,261	539	82,530	—	4,816	96,146	—	96,146
	1948	223	—	4,333	—	465	5,026	—	5,021	2,447	—	45,413	—	5,352	53,212	—	53,212
	1949	200	—	1,000	—	538	1,738	—	1,738	2,500	—	11,963	—	6,869	21,332	—	21,332

N.B.—Other Exporters (See Introductory Note 5) : British Honduras ; Cayman Islands. Malaya has a substantial entrepôt trade in this commodity ; its imports and exports were as follows :—

Year	Imports		Exports	
	Quantity (Tons)	Value (£)	Quantity (Tons)	Value (£)
1938	2,493	4,886	992	2,351
1939	2,228	4,710	299	691
1946	1,255	16,116	977	27,009
1947	1,046	12,038	588	13,126
1948	1,088	7,611	127	3,139
1949	1,307	9,211	63	801

F. TANNING MATERIALS

TABLE 60 : WATTLE BARK

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda ..	1938	510	—	1,199	—	2,726	4,435	58(1)	4,493	3,626	—	7,830	—	17,853	29,309	362	29,671
	1939	1,566	669	5,790	—	3,290	11,315	20(1)	11,335	9,509	4,972	37,848	—	20,393	72,722	124	72,846
	1946	350	3,123	2,297	—	2,082	7,852	—	7,852	3,495	31,403	22,297	—	20,940	78,135	—	78,135
	1947	210	6,014	2,638	—	1,165	10,027	223(1)	10,250	2,230	82,070	33,415	—	12,977	130,692	2,232	132,924
	1948	—	10,706	750	—	21	11,477	1(1)	11,478	—	179,075	11,650	1	326	191,052	21	191,073
	1949	—	4,319	1,595	—	110	6,024	—	6,024	—	81,385	30,165	—	2,103	113,653	—	113,653
Tanganyika	1938	—	—	40	—	74	114	—	114	—	—	250	—	329	579	—	579
	1939	—	—	—	—	61	61	—	61	—	—	—	—	243	243	—	243
	1946	—	—	—	—	—	—	179(1)	179	—	—	—	—	—	—	1,480	1,480
	1947	—	136	36	—	—	172	276(1)	448	—	1,627	392	—	—	2,019	2,508	4,527
	1948	—	—	20	—	—	20	1,755(1)	1,775	—	—	300	—	—	300	21,388	21,688
	1949	—	3,914	—	—	—	3,914	—	3,914	—	104,218	—	—	—	104,218	—	104,218
Totals	1938	510	—	1,239	—	2,800	4,549	58	4,607	3,626	—	8,080	—	18,182	29,888	362	30,250
	1939	1,566	669	5,790	—	3,351	11,376	20	11,396	9,509	4,972	37,848	—	20,636	72,965	124	73,089
	1946	350	3,123	2,297	—	2,082	7,852	179	8,031	3,495	31 403	22,297	—	20,940	78,135	1,480	79,615
	1947	210	6,150	2,674	—	1,165	10,199	499	10,698	2,230	83,697	33,807	—	12,977	132,711	4,740	137,451
	1948	—	10,706	770	—	21	11,497	1,756	13,253	—	179,075	11,950	1	326	191,352	21,409	212,761
	1949	—	8,233	1,595	—	110	9,938	—	9,938	—	185,603	30,165	—	2,103	217,871	—	217,871

N.B.—Small exports from Swaziland have been excluded (See Introductory Note 5) :—

(1) Practically all Kenya and Uganda's inter-colonial exports went to Tanganyika and all Tanganyika's inter-colonial exports went to Kenya and Uganda. Neither Kenya and Uganda nor Tanganyika imported from other sources. Tanganyika only re-exported this product in 1947 (52 tons went in that year to " Other parts of the Sterling Area "). Kenya and Uganda's re-exports were as follows :—

Tons

Year	*Other Parts of Sterling Area*	*Other Countries*	*Total*
1938	—	—	—
1939	—	—	—
1946	80	99	179
1947	374	—	374
1948	1,724	—	1,724
1949	—	—	—

TABLE 61 : OTHER TANNING MATERIALS

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Wattle Bark Extract																	
Kenya and Uganda ..	1938	3,829	—	25	—	2,099	5,953	—	5,953	53,474	—	311	—	30,132	83,917	—	83,917
	1939	4,814	—	37	—	1,715	6,566	—	6,566	66,749	—	516	—	24,173	91,438	—	91,438
	1946	2,602	1,837	3,322	—	4,133	11,894	52	11,946	53,991	41,553	71,297	—	85,440	252,281	1,069	253,350
	1947	3,183	2,982	2,281	—	3,081	11,527	63	11,590	84,686	78,299	67,687	—	81,172	311,844	1,841	313,685
	1948	5,145	2,450	2,964	10	2,141	12,710	26	12,736	201,736	96,729	116,979	415	84,169	500,028	1,052	501,080
	1949	5,771	9,804	1,672	10	4,626	21,883	103	21,986	229,917	398,933	68,061	415	187,320	884,646	4,195	888,841
Sumach																	
Cyprus	1938	725	—	—	—	13	738	—	738	8,848	—	—	—	166	9,014	—	9,014
	1939	876	—	—	—	20	896	—	896	11,297	—	—	—	255	11,552	—	11,552
	1946	313	13	—	—	107	433	—	433	6,757	248	—	—	2,436	9,441	—	9,441
	1947	112	21	—	—	86	219	—	219	2,054	420	—	—	1,990	4,464	—	4,464
	1948	—	10	—	—	62	72	—	72	—	200	—	—	1,486	1,686	—	1,686
	1949	180	26	2	—	51	259	10	269	3,533	520	45	—	1,054	5,152	200	5,352

N.B.—Small exports of Bark for Tanning from British Guiana have been excluded (See Introductory Note 5).

G. TIMBER

TABLE 62: MAHOGANIES, CEDAR (HARDWOOD), ETC.

(As the form (logs, sawn, hewn, etc.) in which the timber was exported is not always known, or is given in different forms, no quantity totals are given

Colony, etc.	Year	Quantity (Cu. ft.)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda (1) ..	1938	—	—	—	—	1,180	1,180	—	1,180	—	—	—	—	310	310	—	310
	1939	—	—	—	—	241	241	—	241	—	—	—	—	65	65	—	65
	1946	—	13,264	—	—	8,691	21,955	1,297(7)	23,252	—	5,602	—	—	2,391	7,993	292	8,285
	1947	—	—	3	—	2,721	2,724	1,378(7)	4,102	—	—	2	—	1,112	1,114	376	1,490
	1948	2,076	1,968	—	—	18	4,062	3,678(7)	7,740	750	700	—	—	9	1,459	1,965	3,424
	1949	—	—	—	—	279	279	18(7)	297	—	—	—	—	140	140	9	149
Tanganyika	1946(4)	—	4,849	—	—	3,000	7,849	965(7)	8,814	—	2,048	—	—	1,500	3,548	266	3,814
	1947(5)	—	3,572	—	—	53,137	56,709	2,853(7)	59,562	—	1,595	—	—	16,385	17,980	971	18,951
	1948(6)	4,108	—	—	—	—	4,108	400(7)	4,508	2,020	—	—	—	—	2,020	300	2,320
	1949(6)	—	5	—	—	15	20	—	20	—	2	—	—	7	9	—	9
Totals	1938									—	—	—	—	310	310	—	310
	1939									—	—	—	—	65	65	—	65
	1946									—	7,650	—	—	3,891	11,541	558	12,099
	1947									—	1,595	2	—	17,497	19,094	1,347	20,441
	1948									2,770	700	—	—	9	3,479	2,265	5,744
	1949									—	2	—	—	147	149	9	158
West Africa (2)																	
Gold Coast																	
Unspecified	1938	463,311	4	210,881	95	5,468	679,759	3,382	683,141	49,304	1	24,414	18	606	74,343	288	74,631
	1939	251,245	7	259,494	—	3,387	514,133	—	514,133	26,299	1	26,012	—	387	52,699	—	52,699
Logs	1946	1,057,796	55,547	2,413,045	90,312	—	3,616,700	—	3,616,700	185,711	9,259	579,173	18,390	—	792,533	—	792,533
	1947	2,460,845	6,860	1,881,403	18,020	—	4,367,128	—	4,367,128	506,797	1,081	629,249	8,063	—	1,145,190	—	1,145,190
	1948	2,069,068	25,260	2,381,699	38,250	124,192	4,638,469	—	4,638,469	494,785	5,802	1,092,200	13,271	38,919	1,644,977	—	1,644,977
	1949	1,577,651	121,600	761,668	4,040	199,413	2,664,372	—	2,664,372	398,284	26,179	320,185	1,017	69,537	815,202	—	815,202
Sawn	1946	149,854	32,789	4,893	9,996	—	197,532	2,247	199,779	43,671	9,330	1,468	4,159	—	58,628	96	58,724
	1947	169,194	—	277,054	22,543	51	468,842	10,196	479,038	53,935	—	196,057	16,206	12	266,210	3,059	269,269
	1948	254,277	56,645	397,185	38,464	14,956	761,527	2,630	764,157	98,675	17,337	284,930	24,562	5,467	430,971	789	431,760
	1949	593,325	162,373	163,745	17,815	27,664	964,922	46,706	1,011,628	301,852	74,658	102,960	12,134	12,725	504,329	15,963	520,292
Nigeria																	
Unspecified	1938	416,350	—	7,714	—	210,427	634,491	—	634,491	39,236	—	925	—	13,064	53,225	—	53,225
	1939	331,405	—	47,986	—	73,339	452,730	—	452,730	28,355	—	4,938	—	5,229	38,522	—	38,522
Logs	1946	674,966	12,936	46,601	—	—	734,503	—	734,503	66,015	1,965	10,326	—	—	78,306	—	78,306
	1947	423,607	14,556	244,248	—	86,111	768,522	—	768,522	72,093	2,540	74,494	—	10,894	160,021	—	160,021
	1948	500,311	9,338	67,906	2,706	130,242	710,503	—	710,503	105,447	1,995	29,218	1,272	30,328	168,260	—	168,260
	1949	561,403	3,729	25,787	—	87,048	677,967	1,359	679,326	120,398	927	10,178	—	25,564	157,067	361	157,428
Sawn	1946	253,100	35,768	16,790	—	84	305,742	11,025	316,767	51,902	6,317	8,548	—	32	66,799	2,744	69,543
	1947	175,219	6,309	61,859	—	50	243,437	18,930	262,367	55,415	2,576	35,100	—	16	93,107	7,555	100,662
	1948	122,941	12,901	10,816	801	1,318	148,777	3,856	152,633	36,995	7,396	6,345	455	713	51,904	1,420	53,324
	1949	171,421	5,861	992	—	24,284	202,558	10,805	213,363	59,905	3,318	543	—	8,770	72,536	4,741	77,277
Totals	1938									88,540	1	25,339	18	13,670	127,568	288	127,856
	1939									54,654	1	30,950	—	5,616	91,221	—	91,221
	1946									347,299	26,871	599,515	22,549	32	996,266	2,840	999,106
	1947									688,240	6,197	934,900	24,269	10,922	1,664,528	10,614	1,675,142
	1948									735,902	32,530	1,412,693	39,560	75,427	2,296,112	2,209	2,298,321
	1949									880,439	105,082	433,866	13,151	116,596	1,549,134	21,065	1,570,199

TABLE 62: MAHOGANIES, CEDAR (HARDWOOD), ETC.—*(continued)*.

		Quantity (Cu. ft.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies (3)																	
British Honduras Logs	1938	13,605	—	835,084	—	—	848,689	—	848,689	4,449	—	159,713	—	—	164,162	—	164,162
	1939	13,126	—	498,926	—	—	512,052	—	512,052	6,745	—	98,525	—	—	105,270	—	105,270
	1946	—	—	271,071	—	—	271,071	—	271,071	—	—	92,372	—	—	92,372	—	92,372
	1947	4,315	—	459,694	—	58	464,067	64	464,131	1,514	—	188,215	—	2	189,731	13	189,744
	1948	—	—	506,787	5,330	—	512,117	—	512,117	—	—	242,014	3,567	—	245,581	—	245,581
	1949	1,471	—	128,719	689	4,220	135,099	—	135,099	546	—	29,571	575	3,704	34,396	—	34,396
Sawn	1938	228,005	—	—	113	—	228,118	798	228,916	53,796	—	—	45	—	53,841	307	54,148
	1939	193,249	—	1,180	5,607	—	200,036	1,822	201,858	55,878	—	64	1,211	—	57,153	547	57,700
	1946	165,362	2,034	144,618	56,401	5,800	374,215	65,920	440,135	136,335	1,723	97,991	39,007	4,384	279,440	28,154	307,594
	1947	71,757	2,545	239,876	59,949	8,606	382,733	41,990	424,723	65,299	2,844	142,413	48,690	9,799	269,045	32,865	301,910
	1948	134,632	—	137,143	90,126	9,171	371,072	56,191	427,263	128,919	—	96,062	58,472	11,018	294,471	32,815	327,286
	1949	252,849	—	48,436	18,492	9,181	328,958	33,459	362,417	233,595	—	29,026	9,239	10,768	282,628	27,255	309,883
Totals	1938									58,245	—	159,713	45	—	218,003	307	218,310
	1939									62,623	—	98,589	1,211	—	162,423	547	162,970
	1946									136,335	1,723	190,363	39,007	4,384	371,812	28,154	399,966
	1947									66,813	2,844	330,628	48,690	9,801	458,776	32,878	491,654
	1948									128,919	—	338,076	62,039	11,018	540,052	32,815	572,867
	1949									234,141	—	58,597	9,814	14,472	317,024	27,255	344,279
Grand Totals	1938									146,785	1	185,052	63	13,980	345,881	595	346.476
	1939									117.277	1	129,539	1,211	5,681	253,709	547	254,256
	1946									483,634	36,244	789,878	61,556	8,307	1,379,619	31,552	1,411,171
	1947									755,053	10,636	1,265,530	72,959	38,220	2,142,398	44,839	2,187,237
	1948									867,591	33,230	1,750,769	101,599	86,454	2,839,643	37,289	2,876,932
	1949									1,114,580	105,084	492,463	22,965	131,215	1,866,307	48,329	1,914,636

N.B.—Other Exporters (See Introductory Note 5): Sierra Leone (African Walnut); Bermuda; British Guiana (West Indian Cedar); Jamaica and Cayman Islands (Mahogany); Trinidad and Tobago and Windward Islands (Mahogany and West Indian Cedar). There were no exports from Tanganyika in 1938 and 1939.

(1) Mahogany (1938, 1939, 1946 and 1947); African Mahogany and Sapele logs (1948 and 1949).
(2) African Mahogany, Sapele Mahogany (Cedar) and African Walnut (Lovoa).
(3) Mahogany and West Indian Cedar.
(4) African Mahogany (Mtonduro).
(5) Mahogany and African Mahogany (Mtonduro).
(6) Mahogany (African and Sapele).
(7) Kenya and Uganda's inter-colonial exports went to Tanganyika (1946-8) and Aden (1949), while only a part of Tanganyika's went to Kenya and Uganda. None of these territories had any re-export trade in these products.

G. TIMBER

TABLE 63 : GREENHEART

		Quantity (Cu. ft)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies																	
British Guiana : Logs (round)	1938	—	—	30,868	—	—	30,868	—	30,868	—	—	2,495	—	—	2,495	—	2,495
	1939	—	—	9,395	—	—	9,395	—	9,395	—	—	610	—	—	610	—	610
	1946	—	—	32,300	—	54,241	86,541	20,985	107,526	—	—	6,353	—	18,926	25,279	6,707	31,986
	1947	13,966	2,297	129,826	—	67,249	213,338	16,070	229,408	4,365	837	32,962	—	24,163	62,327	5,722	68,049
	1948	34,347	—	128,402	—	98,630	261,379	13,279	274,658	10,733	—	31,597	—	30,489	72,819	4,112	76,931
	1949	71,398	—	39,650	—	60,829	171,877	12,673	184,550	22,251	—	7,356	—	19,503	49,110	4,874	53,984
(hewn)	1938	126,961	144	—	—	153,269	280,374	46,473	326,847	13,762	32	—	—	16,447	30,241	4,891	35,132
	1939	121,453	—	76,510	—	44,280	242,243	20,470	262,713	15,482	—	7,680	—	4,719	27,881	2,110	29,991
	1946	112,432	—	3,708	—	52,666	168,806	4,955	173,761	30,850	—	879	—	14,500	46,229	1,470	47,699
	1947	92,184	—	3,012	—	45,683	140,879	12,094	152,973	28,326	—	1,130	—	13,149	42,605	4,242	46,847
	1948	113,076	—	3,558	38	—	116,672	5,662	122,334	35,662	—	1,164	19	—	36,845	2,344	39,189
	1949	140,176	—	—	—	25,460	165,636	3,208	168,844	45,505	—	—	—	9,406	54,911	1,174	56,085
(sawn)	1938	5,138	29	13,087	1,423	22,141	41,818	30,287	72,105	1,135	5	2,620	464	3,803	8,027	5,175	13,202
	1939	8,221	606	24,953	2,023	6,951	42,754	39,318	82,072	1,507	106	4,574	352	1,216	7,755	6,921	14,676
	1946	5,629	—	71,007	3,150	1,947	81,733	43,041	124,774	2,084	—	23,970	1,229	698	27,981	15,683	43,664
	1947	30,395	2,264	104,342	3,080	22,624	162,705	26,117	188,822	12,401	1,349	37,518	1,190	8,902	61,360	10,378	71,738
	1948	27,610	—	54,227	8,072	18,113	108,022	59,411	167,433	12,427	—	22,044	3,418	7,715	45,604	26,129	71,733
	1949	63,457	—	45,946	4,356	33,783	147,542	33,032	180,574	30,702	—	20,141	2,349	15,011	68,203	15,315	83,518
Totals	1938									14,897	37	5,115	464	20,250	40,763	10,066	50,829
	1939									16,989	106	12,864	352	5,935	36,246	9,031	45,277
	1946									32,934	—	31,202	1,229	34,124	99,489	23,860	123,349
	1947									45,092	2,186	71,610	1,190	46,214	166,292	20,342	186,634
	1948									58,822	—	54,805	3,437	38,204	155,268	32,585	187,853
	1949									98,458	—	21,497	2,349	43,920	172,224	21,363	193,587

TABLE 64 : OBECHE (WAWA): AFRICAN WHITEWOOD

		Quantity (Cu. ft.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Gold Coast :																	
Unspecified	1938	—	—	252	—	—	252	—	252	—	—	29	—	—	29	—	29
	1939	4,641	—	—	—	—	4,641	—	4,641	458	—	—	—	—	458	—	458
Logs	1946	30,388	10,934	135,752	2,982	—	180,056	—	180,056	5,225	1,368	20,641	623	—	27,857	—	27,857
	1947	135,742	3,080	98,566	—	—	237,388	—	237,388	22,587	415	14,575	—	—	37,577	—	37,577
	1948	213,500	3,080	79,812	78,820	66,500	441,712	—	441,712	43,906	467	15,947	8,892	14,182	83,394	—	83,394
	1949	1,665,122	3,360	29,540	13,860	47,740	1,759,622	—	1,759,622	280,912	671	4,895	1,958	9,611	298,047	—	298,047
Sawn	1946	—	2,574	—	—	—	2,574	—	2,574	—	756	—	—	—	756	—	756
	1947	3,601	—	—	—	32	3,633	—	3,633	1,260	—	—	—	8	1,268	—	1,268
	1948	10,348	—	6,615	18,200	2,793	37,956	—	37,956	3,480	—	1,050	2,248	411	7,189	—	7,189
	1949	267,530	5,157	2,055	944	—	275,686	—	275,686	103,167	2,275	396	393	—	106,231	—	106,231
Nigeria :																	
Unspecified	1938	330,444	—	—	—	436,963	767,407	—	767,407	18,072	—	—	—	27,860	45,932	—	45,932
	1939	367,760	—	2,997	—	316,144	686,901	—	686,901	21,266	—	198	—	19,104	40,568	—	40,568
Logs	1946	654,026	32,612	—	—	—	686,638	—	686,638	47,223	3,686	—	—	—	50,909	—	50,909
	1947	653,841	16,212	12,623	—	3,703	686,379	—	686,379	65,823	1,912	2,531	—	931	71,197	—	71,197
	1948	496,061	7,275	—	22,188	303,922	829,446	—	829,446	54,851	1,168	—	3,967	43,404	103,390	—	103,390
	1949	935,943	11,092	12,000	—	205,531	1,164,566	75	1,164,641	121,870	3,152	1,700	—	39,055	165,777	17	165,794
Sawn	1946	118,620	18,281	1,384	—	729	139,014	943	139,957	26,199	5,637	522	—	161	32,519	183	32,702
	1947	183,424	1,988	700	—	719	186,831	975	187,806	53,475	634	243	—	63	54,415	258	54,673
	1948	149,544	3,169	—	—	2,020	154,733	220	154,953	37,827	1,247	—	—	864	39,938	25	39,963
	1949	148,720	3,889	—	—	—	152,609	1,222	153,831	48,667	1,429	—	—	—	50,096	489	50,585
Totals	1938									18,072	—	29	—	27,860	45,961	—	45,961
	1939									21,724	—	198	—	19,104	41,026	—	41,026
	1946									78,647	11,447	21,163	623	161	112,041	183	112,224
	1947									143,145	2,961	17,349	—	1,002	164,457	258	164,715
	1948									140,064	2,882	16,997	15,107	58,861	233,911	25	233,936
	1949									554,616	7,527	6,991	2,351	48,666	620,151	506	620,657

G. TIMBER

TABLE 65 : OTHER HARDWOODS (1)

		Quantity (Cu. ft)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Abura																	
Gold Coast :																	
(*a*) Logs	1948	99,400	—	—	—	—	99,400	—	99,400	8,620	—	—	—	—	8,620	—	8,620
	1949	206,360	—	—	—	—	206,360	—	206,360	20,956	—	—	—	—	20,956	—	20,956
(*b*) Sawn	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	39,620	5	—	—	—	39,625	—	39,625	3,067	1	—	—	—	3,068	—	3,068
Nigeria																	
(*a*) Logs	1946	656	—	—	—	—	656	—	656	130	—	—	—	—	130	—	130
	1947	32,931	—	—	—	—	32,931	—	32,931	6,450	—	—	—	—	6,450	—	6,450
	1948	150,854	—	—	—	7,655	158,509	—	158,509	31,461	—	—	—	1,627	33,088	—	33,088
	1949	626,133	—	—	—	—	626,133	—	626,133	146,446	—	—	—	—	146,446	—	146,446
(*b*) Sawn	1946	—	8,761	993	—	—	9,754	—	9,754	—	2,792	397	—	2	3,191	—	3,191
	1947	1,171	20	580	—	—	1,771	—	1,771	519	25	248	—	—	792	—	792
	1948	8,163	—	—	—	—	8,163	1,082	9,245	3,379	—	—	—	—	3,379	256	3,635
	1949	9,532	500	—	—	—	10,032	—	10,032	4,450	300	—	—	—	4,750	—	4,750
Totals	1946									130	2,792	397	—	2	3,321	—	3,321
	1947									6,969	25	248	—	—	7,242	—	7,242
	1948									43,460	—	—	—	1,627	45,087	256	45,343
	1949									174,919	301	—	—	—	175,220	—	175,220
Afara (Ofram)																	
Gold Coast																	
(*a*) Logs	1948	31,081	—	140	4,200	—	35,421	—	35,421	4,959	—	20	401	—	5,380	—	5,380
	1949	39,760	—	—	—	1,932	41,692	—	41,692	6,901	—	—	—	391	7,292	—	7,292
(*b*) Sawn	1948	388	—	—	—	—	388	—	388	122	—	—	—	—	122	—	122
	1949	1,331	1,123	—	—	—	2,454	—	2,454	644	336	—	—	—	980	—	980
Nigeria																	
(*a*) Logs	1946	76,849	2,638	—	—	—	79,487	—	79,487	6,582	321	—	—	—	6,903	—	6,903
	1947	149,491	—	2,339	—	—	151,830	—	151,830	24,783	—	451	—	—	25,234	—	25,234
	1948	127,569	—	—	—	—	127,569	—	127,569	26,561	—	—	—	—	26,561	—	26,561
	1949	194,158	906	—	—	160	195,224	—	195,224	45,828	400	—	—	36	46,264	—	46,264
(*b*) Sawn	1946	—	14,020	—	—	—	14,020	—	14,020	—	5,457	—	—	—	5,457	—	5,457
	1947	124	8,385	—	—	—	8,509	—	8,509	126	3,866	—	—	—	3,992	—	3,992
	1948	—	5,126	—	—	—	5,126	—	5,126	—	2,518	—	—	—	2,518	—	2,518
	1949	—	—	—	—	—	—	199	.199	—	—	—	—	—	—	68	68
Totals	1946									6,582	5,778	—	—	—	12,360	—	12,360
	1947									24,909	3,866	451	—	—	29,226	—	29,226
	1948									31,642	2,518	20	401	—	34,581	—	34,581
	1949									53,373	736	—	—	427	54,536	68	54,604
Afzelia Apu Papag																	
Nigeria																	
(*a*) Logs	1949	20,998	3,072	—	—	—	24,070	—	24,070	7,102	1,498	—	—	—	8,600	—	8,600
(*b*) Sawn	1949	768	3,020	—	—	273	4,061	1,370	5,431	265	1,455	—	—	201	1,921	608	2,529
Totals	1949									7,367	2,953	—	—	201	10,521	608	11,129

Agba (2)																	
Nigeria																	
(a) Logs	1946	1,005	2,344	—	—	—	3,349	—	3,349	126	303	—	—	—	429	—	429
	1947	104,262	—	5,818	—	—	110,080	—	110,080	19,406	—	1,121	—	—	20,527	—	20,527
	1948	191,316	—	—	—	—	191,316	—	191,316	32,790	—	—	—	—	32,790	—	32,790
	1949	374,707	—	—	—	—	374,707	—	374,707	55,268	—	—	—	—	55,268	—	55,268
(b) Sawn	1946	111,241	828	—	—	317	112,386	5,291	117,677	16,733	298	—	—	124	17,155	1,146	18,301
	1947	137,369	1,650	3,126	—	3,574	145,719	11,611	157,330	39,328	825	1,648	—	39	41,840	3,065	44,905
	1948	113,405	6,162	—	—	407	119,974	1,785	121,759	30,603	2,777	—	—	260	33,640	566	34,206
	1949	117,289	2,970	—	—	—	120,259	5,325	125,584	36,258	2,124	—	—	—	38,382	2,195	40,577
Totals	1946									16,859	601	—	—	124	17,584	1,146	18,730
	1947									58,734	825	2,769	—	39	62,367	3,065	65,432
	1948									63,393	2,777	—	—	260	66,430	566	66,996
	1949									91,526	2,124	—	—	—	93,650	2,195	95,845
Avodire																	
Gold Coast																	
(a) Logs	1948	—	—	92,719	—	—	92,719	—	92,719	—	—	24,646	—	—	24,646	—	24,646
	1949	560	6,408	218,460	—	1,585	227,013	—	227,013	94	1,612	53,252	—	359	55,317	—	55,317
(b) Sawn	1948	313	—	2,221	—	—	2,534	—	2,534	88	—	1,630	—	—	1,718	—	1,718
	1949	1,005	19	1,862	—	—	2,886	—	2,886	305	8	1,118	—	—	1,431	—	1,431
Totals	1948									88	—	26,276	—	—	26,364	—	26,364
	1949									399	1,620	54,370	—	359	56,748	—	56,748
Ayan Bonsamdua (2)																	
Nigeria																	
(a) Logs	1949	28,592	—	—	—	—	28,592	—	28,592	5,820	—	—	—	—	5,820	—	5,820
(b) Sawn	1949	1,154	—	—	—	—	1,154	862	2,016	302	—	—	—	—	302	369	671
Totals	1949									6,122	—	—	—	—	6,122	369	6,491
Belian																	
North Borneo	1946	—	1	—	—	—	1	18,693	18,694	—	..	—	—	—	..	..	..
	1947	—	—	—	—	—	—	53,387	53,387	—	—	—	—	—	—	..	..
	1948	—	—	—	—	—	—	103,518	103,518	—	—	—	—	—	—	..	..
	1949	1	2,022	67	—	—	2,090	78,687	80,777	..	..	..	—	—	..	..	..
Bitterwood																	
Jamaica	1938	5,175	—	5,355	—	28,935	39,465	—	39,465	147	—	268	—	1,156	1,571	—	1,571
	1939	10,665	—	4,500	—	7,830	22,995	—	22,995	282	—	230	—	376	888	—	888
	1946	2,250	—	11,250	—	4,500	18,000	—	18,000	530	—	1,006	—	450	1,986	—	1,986
	1947	7,200	—	24,435	—	47,700	79,335	—	79,335	1,049	—	2,628	—	5,237	8,914	—	8,914
	1948	—	—	—	—	6,750	6,750	—	6,750	—	—	—	—	1,552	1,552	—	1,552
	1949	—	—	—	—	9,000	9,000	—	9,000	—	—	—	—	935	935	—	935
Blackwood																	
Tanganyika	1948	11,046	—	1,427	—	2,182	14,655	75	14,730	6,227	—	919	—	1,525	8,671	31	8,702
	1949	1,325	—	756	—	1,444	3,525	—	3,525	588	—	450	—	996	2,034	—	2,034
Camphor Wood, African (3)																	
Tanganyika	1946	—	339	—	—	—	339	13,816(11)	14,155	—	153	—	—	—	153	3,539	3,692
	1947	—	1,994	—	—	1,370	3,364	19,098(11)	22,462	—	687	—	—	817	1,504	6,368	7,872
	1948	6,552	—	—	—	—	6,552	27,351(11)	33,903	4,714	—	—	—	—	4,714	8,182	12,896
	1949	26,245	—	—	—	—	26,245	2,079(11)	28,324	15,788	—	—	—	—	15,788	752	16,540
Dahoma (Ekhimi)																	
Gold Coast																	
(a) Logs	1948	163,004	—	2,405	—	—	165,409	—	165,409	43,854	—	923	—	—	44,777	—	44,777
	1949	75,600	—	—	—	—	75,600	—	75,600	22,563	—	—	—	—	22,563	—	22,563
(b) Sawn	1948	6,111	—	—	—	102	6,213	—	6,213	2,454	—	—	—	38	2,492	—	2,492
	1949	2,647	1	314	—	—	2,962	—	2,962	1,000	—	117	—	—	1,117	—	1,117
Nigeria																	
(a) Logs	1946	28,824	—	—	—	—	28,824	—	28,824	3,173	—	—	—	—	3,173	—	3,173
	1947	66,810	—	—	—	—	66,810	—	66,810	13,867	—	—	—	—	13,867	—	13,867
	1948	80,113	—	—	—	—	80,113	—	80,113	20,024	—	—	—	—	20,024	—	20,024
	1949	65,879	—	—	—	2,071	67,950	—	67,950	17,205	—	—	—	641	17,846	—	17,846

TABLE 65: OTHER HARDWOODS (1)—*(continued)*.

Colony, etc.	Year	Quantity (Cu. ft.)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Dahoma (Ekhimi)—*(continued)*																	
Nigeria—*(continued)*																	
(*b*) Sawn	1946	9,665	—	—	—	—	9,665	104	9,769	2,166	—	—	—	—	2,166	25	2,191
	1947	9,824	—	—	—	—	9,824	758	10,582	2,378	—	—	—	—	2,378	247	2,625
	1948	3,802	—	—	—	—	3,802	942	4,744	940	—	—	—	—	940	343	1,283
	1949	1,560	—	—	—	—	1,560	738	2,298	451	—	—	—	—	451	325	776
Totals	1946									5,339	—	—	—	—	5,339	25	5,364
	1947									16,245	—	—	—	—	16,245	247	16,492
	1948									67,272	—	923	—	38	68,233	343	68,576
	1949									41,219	—	117	—	641	41,977	325	42,302
Danta (Otatu)																	
Gold Coast																	
(*a*) Logs	1948	7,000	—	280	—	—	7,280	—	7,280	1,356	—	51	—	—	1,407	—	1,407
	1949	60,620	—	—	—	—	60,620	—	60,620	10,084	—	—	—	—	10,084	—	10,084
(*b*) Sawn	1948	165	—	—	—	—	165	—	165	49	—	—	—	—	49	—	49
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nigeria																	
(*a*) Logs	1946	9,478	—	—	—	—	9,478	—	9,478	846	—	—	—	—	846	—	846
	1947	18,773	—	—	—	—	18,773	—	18,773	4,391	—	—	—	—	4,391	—	4,391
	1948	27,823	—	—	—	—	27,823	—	27,823	8,646	—	—	—	—	8,646	—	8,646
	1949	30,459	—	—	—	276	30,735	700	31,435	9,452	—	—	—	80	9,532	231	9,763
(*b*) Sawn	1946	1,500	577	—	—	—	2,077	—	2,077	372	144	—	—	—	516	—	516
	1947	6,200	—	—	—	—	6,200	—	6,200	2,488	—	—	—	—	2,488	—	2,488
	1948	2,675	—	—	—	—	2,675	375	3,050	887	—	—	—	—	887	168	1,055
	1949	209	—	—	—	—	209	540	749	86	—	—	—	—	86	296	382
Totals	1946									1,218	144	—	—	—	1,362	—	1,362
	1947									6,879	—	—	—	—	6,879	—	6,879
	1948									10,938	—	51	—	—	10,989	168	11,157
	1949									19,622	—	—	—	80	19,702	527	20,229
Ebony (4)																	
Tanganyika	1938	570	—	67	—	6,652	7,289	716	8,005	54	—	10	—	382	446	30	476
	1939	1,367	—	—	—	3,284	4,651	322	4,973	145	—	—	—	328	473	15	488
	1946	8,686	—	15,017	—	6,512	30,215	536	30,751	4,885	—	8,148	—	3,628	16,661	411	17,072
	1947	10,515	—	1,821	—	5,505	17,841	—	17,841	6,106	—	1,107	—	3,107	10,320	—	10,320
	1948	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1949	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gedunohor Edinam																	
Gold Coast																	
(*a*) Logs	1948	94,395	—	140	—	2,800	97,335	—	97,335	23,485	—	42	—	637	24,164	—	24,164
	1949	98,416	280	—	—	560	99,256	—	99,256	23,130	37	—	—	125	23,292	—	23,292
(*b*) Sawn	1948	16,280	—	—	—	—	16,280	1,501	17,781	4,762	—	—	—	—	4,762	450	5,212
	1949	1,601	—	—	—	244	1,845	3,669	5,514	574	—	—	—	145	719	1,101	1,820
Nigeria																	
(*a*) Logs	1946	59,142	—	—	—	—	59,142	—	59,142	4,812	—	—	—	—	4,812	—	4,812
	1947	50,634	—	3,575	—	—	54,209	—	54,209	7,782	—	1,139	—	—	8,921	—	8,921
	1948	72,578	—	—	—	1,720	74,298	—	74,298	13,336	—	—	—	417	13,753	—	13,753
	1949	131,965	—	—	—	718	132,683	236	132,919	26,361	—	—	—	156	26,517	139	26,656
(*b*) Sawn	1946	14,637	—	—	—	—	14,637	315	14,952	2,211	—	—	—	—	2,211	58	2,269
	1947	16,263	—	—	—	—	16,263	62	16,325	4,547	—	—	—	—	4,547	17	4,564
	1948	6,337	—	—	—	—	6,337	161	6,498	1,489	—	—	—	—	1,489	44	1,533
	1949	10,562	—	—	—	—	10,562	1,324	11,886	3,367	—	—	—	—	3,367	480	3,847
Totals	1946									7,023	—	—	—	—	7,023	58	7,081
	1947									12,329	—	1,139	—	—	13,468	44	13,485
	1948									43,072	—	42	—	1,054	44,168	494	44,662
	1949									53,432	37	—	—	426	53,895	1,720	55,615

Guarea																	
Gold Coast (a) Logs	1948	47,192	—	280	—	7,000	54,472	—	54,472	9,298	—	76	—	2,158	11,532	—	11,532
	1949	33,740	—	—	—	—	33,740	—	33,740	8,025	—	—	—	—	8,025	—	8,025
(b) Sawn	1948	59,669	—	—	—	—	59,669	—	59,669	11,171	—	—	—	—	11,171	—	11,171
	1949	1,214	—	—	—	402	1,616	—	1,616	531	—	—	—	239	770	—	770
Nigeria (a) Logs	1946	31,972	—	—	—	—	31,972	—	31,972	2,629	—	—	—	—	2,629	—	2,629
	1947	33,568	—	—	—	—	33,568	—	33,568	6,395	—	—	—	—	6,395	—	6,395
	1948	92,679	—	—	—	7,524	100,203	—	100,203	22,713	—	—	—	2,349	25,062	—	25,062
	1949	97,973	—	—	—	—	97,973	—	97,973	24,582	—	—	—	—	24,582	—	24,582
(b) Sawn	1946	15,178	300	—	—	—	15,478	—	15,478	2,792	100	—	—	—	2,892	—	2,892
	1947	24,055	4,097	—	—	—	28,152	391	28,543	7,513	1,130	—	—	—	8,643	105	8,748
	1948	25,664	—	—	—	—	25,664	1,464	27,128	7,222	—	—	—	—	7,222	530	7,752
	1949	28,986	—	—	—	—	28,986	1,444	30,430	9,252	—	—	—	—	9,252	565	9,817
Totals	1946									5,421	100	—	—	—	5,521	—	5,521
	1947									13,908	1,130	—	—	—	15,038	105	15,143
	1948									50,404	—	76	—	4,507	54,987	530	55,517
	1949									42,390	—	—	—	239	42,629	565	43,194
Idigbo (Emeri)																	
Gold Coast (a) Logs	1948	—	—	7,560	—	—	7,560	—	7,560	—	—	1,611	—	—	1,611	—	1,611
	1949	58,660	—	26,460	—	—	85,120	33	85,153	10,607	—	6,856	—	—	17,463	9	17,472
(b) Sawn	1948	6,359	—	—	—	—	6,359	—	6,359	1,625	—	—	—	—	1,625	—	1,625
	1949	4,668	7,685	6	—	—	12,359	3,025	15,384	1,414	3,604	1	—	—	5,019	1,774	6,793
Nigeria (a) Logs	1946	48,883	—	—	—	—	48,883	—	48,883	5,742	—	—	—	—	5,742	—	5,742
	1947	59,870	—	1,719	—	—	61,589	—	61,589	8,491	—	589	—	—	9,080	—	9 080
	1948	85,975	—	—	—	8,064	94,039	—	94,039	15,081	—	—	—	484	15,565	—	15,565
	1949	60,999	—	—	—	2,954	63,953	1,200	65,153	11,896	—	—	—	978	12,874	277	13,151
(b) Sawn	1946	11,647	—	—	—	—	11,647	902	12,549	1,862	—	—	—	—	1,862	175	2,037
	1947	14,216	—	—	—	—	14,216	993	15,209	3,678	—	—	—	—	3,678	259	3,937
	1948	8,683	—	—	—	—	8,683	3	8,686	2,301	—	—	—	—	2,301	1	2,302
	1949	6,897	164	—	—	—	7,061	729	7,790	2,229	125	—	—	—	2,354	274	2,628
Totals	1946									7,604	—	—	—	—	7,604	175	7,779
	1947									12,169	—	589	—	—	12,758	259	13,017
	1948									19,007	—	1,611	—	484	21,102	1	21,103
	1949									26,146	3,729	6,857	—	978	37,710	2,334	40,044
Iroko (Mvule : Odom) (5)																	
Kenya and Uganda Unspecified	1946	—	95,935	—	—	45,176	141,111	40,575(12)	181,686	—	37,992	—	—	20,304	58,296	11,269	69,565
	1947	10	24,384	3	—	2,523	26,920	16,529(12)	43,449	8	10,704	2	—	1,286	12,000	6,144	18,144
Logs	1948	195	—	—	—	224	419	2,775(12)	3,194	91	—	—	—	133	224	1,754	1,978
	1949	32	37	—	—	—	69	—	69	28	35	—	—	—	63	—	63
Tanganyika Unspecified	1938	40,485	2	—	—	90	40,577	22,432(12)	63,009	9,045	1	—	—	23	9,069	4,844	13,913
	1939	27,099	800	—	—	1,024	28,923	28,374(12)	57,297	6,389	181	—	—	214	6,784	5,738	12,522
	1946	—	6,168	—	—	—	6,168	31,960(12)	38,128	—	3,184	—	—	—	3,184	9,175	12,359
	1947	—	9,680	—	—	—	9,680	16,812(12)	26,492	—	5,275	—	—	—	5,275	8,796	14,071
Logs	1948	—	3,369	—	—	—	3,369	17,209(12)	20,578	—	1,943	—	—	—	1,943	9,068	11,011
	1949	29	506	—	—	—	535	17,130(12)	17,665	25	252	—	—	—	277	9,403	9,680
Nigeria (a) Unspecified	1938	35,531	—	1,639	—	297	37,467	—	37,467	2,665	—	136	—	5	2,806	—	2,806
	1939	27,555	18	—	—	506	28,079	148	28,227	2,008	3	—	—	24	2,035	26	2,061
(b) Logs	1946	93,570	8,232	—	—	—	101,802	—	101,802	11,579	1,657	—	—	—	13,236	—	13,236
	1947	50,716	5,358	—	—	45,162	101,236	—	101,236	13,670	1,102	—	—	5,382	20,154	—	20,154
	1948	52,197	1,297	—	—	15,273	68,767	—	68,767	16,674	275	—	—	2,837	19,786	—	19,786
	1949	66,576	9,841	—	—	3,880	80,297	—	80,297	19,501	2,187	—	—	1,706	23,394	—	23,394

TABLE 65: OTHER HARDWOODS (1)—(*continued*).

		Quantity (Cu. ft.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Iroko (Mvule : Odom)																	
Nigeria—(*continued*)																	
(*c*) Sawn	1946	10,335	424	—	—	—	10,759	391	11,150	2,384	109	—	—	—	2,493	119	2,612
	1947	5,776	5,775	—	—	3,125	14,676	634	15,310	2,093	3,209	—	—	2,313	7,615	222	7,837
	1948	6,543	—	42	—	—	6,585	1,309	7,894	3,467	—	13	—	—	3,480	560	4,040
	1949	6,031	—	—	—	8,500	14,531	1,449	15,980	2,356	—	—	—	3,432	5,788	685	6,473
Totals	1938									11,710	1	136	—	28	11,875	4,844	16,719
	1939									8,397	184	—	—	238	8,819	5,764	14,583
	1946									13,963	42,942	—	—	20,304	77,209	20,563	97,772
	1947									15,771	20,290	2	—	8,981	45,044	15,162	60,206
	1948									20,232	2,218	13	—	2,970	25,433	11,382	36,815
	1949									21,910	2,474	—	—	5,138	29.522	10,088	39,610
Kapur (Borneo Camphorwood)																	
North Borneo																	
(*a*) Round and Square ..	1946	—	—	—	—	3,041	3,041	88,285	91,326	—	—	—	—	..	..	..	..
	1947	13,800	4,076	—	—	15,248	33,124	160,971	194,095	..	..	—	—	..	..	..	..
	1948	26,964	11,729	—	—	12,082	50,775	180,231	231,006	..	..	—	—	..	..	..	..
	1949	—	492	123	—	—	615	232,493	233,108	—	..	..	—	—	..	..	..
(*b*) Sawn	1947	—	—	2	—	—	2	—	2	—	—	..	—	—	..	—	..
	1948	—	—	1,454	—	—	1,454	12,578	14,032	—	—	..	—	—	..	..	..
	1949	16,138	—	31	—	181	16,350	54,665	71,015	..	—	..	—	..	..	..	..
Keruing																	
North Borneo																	
(a) Round and Square ..	1946	—	—	—	—	6,013	6,013	69,623	75,636	—	—	—	—	..	..	..	..
	1947	1,196	2,335	—	—	33,907	37,438	131,925	169,363	..	..	—	—	..	..	..	..
	1948	19,657	25,985	—	—	70,744	116,386	151,463	267,849	..	..	—	—	..	..	..	..
	1949	28,519	77,132	81	—	13,982	119,714	197,956	317,670	..	..	..	—	..	..	..	..
(*b*) Sawn	1947	3	—	—	—	—	3	—	3	..	—	—	—	—	..	—	..
	1948	8	—	—	—	—	8	2,777	2,785	..	—	—	—	—	..	..	..
	1949	1	—	—	—	—	1	21,623	21,624	..	—	—	—	—	..	..	..
Lignum Vitae(6)																	
Jamaica																	
Unspecified	1938	5,715	225	675	—	5,175	11,790	—	11,790	424	15	45	—	363	847	—	847
	1939	15,345	—	1,530	540	7,965	25,380	—	25,380	1,220	—	125	59	689	2,093	—	2,093
	1946	675	225	675	495	—	2,070	—	2,070	113	48	115	82	—	358	—	358
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	675	—	225	45	—	945	—	945	142	—	56	12	—	210	10	220
	1949	3,690	—	—	—	900	4,590	—	4,590	750	—	—	—	176	926	—	926
Logs	1947	3,555	90	675	180	855	5,355	—	5,355	733	45	154	46	171	1,149	—	1,149
	1948	6,840	45	225	90	—	7,200	—	7,200	1,441	13	57	20	—	1,531	—	1,531
	1949	15,120	1,395	2,700	45	3,600	22,860	—	22,860	3,199	324	793	10	800	5,126	—	5,126
Totals	1938									424	15	45	—	363	847	—	847
	1939									1,220	—	125	59	689	2,093	—	2,093
	1946									113	48	115	82	—	358	—	358
	1947									733	45	154	46	171	1,149	—	1,149
	1948									1,583	13	113	32	—	1,741	10	1,751
	1949									3,949	324	793	10	976	6,052	—	6,052

Logwood (7) Jamaica	1938	2,745	—	33,075	—	223,290	259,110	—	259,110	123	—	1,984	—	12,132	14,239	—	14,239
	1939	3,150	—	193,455	—	130,860	327,465	—	327,465	211	—	9,420	—	6,967	16,598	—	16,598
	1946	—	—	234,765	—	—	234,765	—	234,765	—	—	22,307	—	—	22,307	—	22,307
	1947	810	—	171,900	—	—	172,710	—	172,710	108	—	19,246	—	—	19,354	—	19,354
	1948	—	—	36,900	—	26,820	63,720	—	63,720	—	—	4,559	—	4,184	8,743	—	8,743
	1949	1,125	—	4,860	—	13,050	19,035	—	19,035	155	—	331	—	3,061	3,547	—	3,547
Makore (Baku ; Cherry Mahogany) (8)																	
Gold Coast																	
(*a*) Logs	1946	16,046	—	710	—	—	16,756	—	16,756	3,617	—	245	—	—	3,862	—	3,862
	1947	111,064	—	3,640	—	—	114,704	—	114,704	25,635	—	1,204	—	—	26,839	—	26,839
	1948	279,440	—	980	—	900	281,320	140	281,460	86,345	—	294	—	224	86,863	30	86,893
	1949	371,829	—	—	—	35,140	406,969	—	406,969	100,513	—	—	—	15,045	115,558	—	115,558
(*b*) Sawn	1946	159	—	—	—	—	159	—	159	54	—	—	—	—	54	—	54
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	5,325	—	—	—	—	5,325	—	5,325	1,329	—	—	—	—	1,329	—	1,329
	1949	3,171	—	—	—	—	3,171	—	3,171	1,615	—	—	—	—	1,615	—	1,615
Totals	1946									3,671	—	245	—	—	3,916	—	3,916
	1947									25,635	—	1,204	—	—	26,839	—	26,839
	1948									87,674	—	294	—	224	88,192	30	88,222
	1949									102,128	—	—	—	15,045	117,173	—	117,173
Mansonia (Oprons)																	
Gold Coast ..																	
(*a*) Unspecified	1938	1,575	—	—	—	—	1,575	—	1,575	188	—	—	—	—	188	—	188
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*b*) Logs	1946	426	—	1,136	—	—	1,562	—	1,562	63	—	54	—	—	117	—	117
	1947	5,714	—	—	—	—	5,714	—	5,714	752	—	—	—	—	752	—	752
	1948	74,480	—	280	420	—	75,180	—	75,180	14,251	—	67	79	—	14,397	—	14,397
	1949	196,280	—	420	—	7,420	204,120	—	204,120	35,087	—	69	—	1,014	36,170	—	36,170
(*c*) Sawn	1946	121	—	—	—	—	121	—	121	41	—	—	—	—	41	—	41
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	258	—	—	—	—	258	—	258	174	—	—	—	—	174	—	174
	1949	806	888	—	—	—	1,694	—	1,694	255	469	—	—	—	724	—	724
Nigeria																	
(*a*) Unspecified	1938	137	—	—	—	260	397	—	397	12	—	—	—	66	78	—	78
	1939	1,384	—	—	—	43	1,427	—	1,427	192	—	—	—	12	204	—	204
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*b*) Logs	1948	15,621	—	—	—	—	15,621	—	15,621	3,468	—	—	—	—	3,468	—	3,468
	1949	102,970	—	—	—	137	103,107	—	103,107	29,737	—	—	—	60	29,797	—	29,797
(*c*) Sawn	1948	3,112	—	—	—	—	3,112	—	3,112	827	—	—	—	—	827	—	827
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	1938									200	—	—	—	66	266	—	266
	1939									192	—	—	—	12	204	—	204
	1946									104	—	54	—	—	158	—	158
	1947									752	—	—	—	—	752	—	752
	1948									18,720	—	67	79	—	18,866	—	18,866
	1949									65,079	469	69	—	1,074	66,691	—	66,691
Mora (9)																	
British Guiana																	
(*a* Round	1947	2,464	—	—	—	—	2,464	—	2,464	678	—	—	—	—	678	—	678
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	797	—	—	—	—	797	—	797	199	—	—	—	—	199	—	199
(*b*) Hewn	1938	—	—	—	—	1,198	1,198	—	1,198	—	—	—	—	91	91	—	91
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1946	—	—	—	355	—	355	—	355	—	—	—	89	—	89	—	89
	1947	2,544	—	—	—	114	2,658	—	2,658	700	—	—	—	45	745	—	745
	1948	252	—	—	370	—	622	—	622	55	—	—	130	—	185	—	185
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 65: OTHER HARDWOODS (1)—(*continued*).

		Quantity (Cu. ft.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Mora (9)—(*continued*).																	
British Guiana																	
(*c*) Sawn	1938	—	—	—	—	1,292	1,292	1,631	2,923	—	—	—	—	164	164	212	376
	1939	—	—	—	—	200	200	884	1,084	—	—	—	—	42	42	110	152
	1946	51	—	48	943	40	1,082	3,558	4,640	14	—	18	300	8	340	889	1,229
	1947	8,765	—	11,553	1,154	11,452	32,924	3,885	36,809	2,966	—	4,034	386	2,459	9,845	1,006	10,851
	1948	6,314	—	18,787	152	23,344	48,597	1,499	50,096	2,134	—	4,482	53	7,802	14,471	497	14,968
	1949	10,268	—	1,606	119	17	12,010	2,696	14,706	3,282	—	580	51	6	3,919	1,003	4,922
Totals	1938									—	—	—	—	255	255	212	467
	1939									—	—	—	—	42	42	110	152
	1946									14	—	18	389	8	429	889	1,318
	1947									4,344	—	4,034	386	2,504	11,268	1,006	12,274
	1948									2,189	—	4,482	183	7,802	14,656	497	15,153
	1949									3,481	—	580	51	6	4,118	1,003	5,121
Muninya (Kejaat)																	
Tanganyika																	
Unspecified	1946	50	—	—	—	5,357	5,407	2,669	8,076	30	—	—	—	2,143	2,173	1,028	3,201
	1947	—	131	—	127	3,300	3,558	138	3,696	—	71	—	66	1,600	1,737	69	1,806
	1948	—	—	—	—	—	—	375	375	—	—	—	—	—	—	54	54
	1949	211	8,320	—	—	3,686	12,217	—	12,217	140	4,414	—	—	1,292	5,846	—	5,846
Opepe (Kusia)																	
Gold Coast																	
(*a*) Logs	1948	26,320	—	420	—	—	26,740	—	26,740	6,467	—	120	—	—	6,587	—	6,587
	1949	75,280	—	—	—	—	75,280	—	75,280	19,795	—	—	—	—	19,795	—	19,795
(*b*) Sawn	1948	1,049	—	—	—	68	1,117	—	1,117	326	—	—	—	25	351	—	351
	1949	4,071	—	311	—	—	4,382	58	4,440	1,279	—	116	—	34	1,429	—	1,429
Nigeria																	
(*a*) Logs	1946	35,950	—	—	—	—	35,950	—	35,950	4,247	—	—	—	—	4,247	—	4,247
	1947	53,576	—	—	—	—	53,576	—	53,576	12,787	—	—	—	—	12,787	—	12,787
	1948	36,062	—	—	—	—	36,062	—	36,062	12,401	—	—	—	—	12,401	—	12,401
	1949	73,932	—	—	—	—	73,932	10	73,942	24,180	—	—	—	—	24,180	12	24,192
(*b*) Sawn	1946	24,561	2,458	—	—	5	27,024	3,271	30,295	4,991	460	—	—	1	5,452	806	6,258
	1947	19,333	—	—	—	—	19,333	1,838	21,171	7,495	—	—	—	—	7,495	581	8,076
	1948	4,004	2	—	—	—	4,006	255	4,261	1,405	1	—	—	—	1,406	96	1,502
	1949	842	—	—	—	—	842	742	1,584	300	—	—	—	—	300	324	624
Totals	1946									9,238	460	—	—	1	9,699	806	10,505
	1947									20,282	—	—	—	—	20,282	581	20,863
	1948									20,599	1	120	—	25	20,745	96	20,841
	1949									45,554	—	116	—	34	45,704	336	46,040
Santa Maria																	
British Honduras																	
(*a*) Logs	1946	—	—	15,650	—	—	15,650	—	15,650	—	—	2,330	—	—	2,330	—	2,330
	1947	—	—	21,796	—	—	21,796	—	21,796	—	—	3,757	—	—	3,757	—	3,757
	1948	—	—	3,775	—	—	3,775	—	3,775	—	—	562	—	—	562	—	562
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(*b*) Sawn	1946	10,788	—	2,730	—	—	13,518	529	14,047	4,888	—	931	—	—	5,819	150	5,969
	1947	—	—	16,129	14,893	—	31,022	3,060	34,082	—	—	3,537	5,478	—	9,015	1,159	10,174
	1948	55,194	—	3,123	—	—	58,317	796	59,113	29,308	—	930	—	—	30,238	118	30,356
	1949	5,731	—	2,004	—	—	7,735	38	7,773	2,149	—	368	—	—	2,517	15	2,532
Totals	1946									4,888	—	3,261	—	—	8,149	150	8,299
	1947									—	—	7,294	5,478	—	12,772	1,159	13,931
	1948									29,308	—	1,492	—	—	30,800	118	30,918
	[illegible]									2,149	—	368	—	—	2,517	15	[illegible]

Selangan, Batu No. 2																	
North Borneo																	
Round and Square ..	1946	—	—	—	—	—	—	5,957	5,957	—	—	—	—	—	—	..	..
	1947	—	—	—	—	—	—	47,313	47,313	—	—	—	—	—	—	..	..
	1948	—	184	—	—	—	184	52,241	52,425	—	..	—	—	—	..	..	..
	1949	1	—	131	—	—	132	59,258	59,390	..	—	..	—	—	..	..	..
Selangan Kacha																	
North Borneo																	
(*a*) Round and Square ..	1946	—	—	—	—	—	—	10,391	10,391	—	—	—	—	—	—	..	..
	1947	786	1,431	—	—	—	2,217	76,564	78,781	..	..	—	—	—	..	..	..
	1948	9,105	11,347	—	—	—	20,452	66,723	87,175	..	..	—	—	—	..	..	..
	1949	163	14,249	—	—	—	14,412	84,271	98,683	..	..	—	—	—	..	..	..
(*b*) Sawn	1949	1	—	—	—	—	1	2,026	2,027	..	—	—	—	—	..	..	..
Selangan Kuning																	
North Borneo																	
Round	1946	—	—	—	—	—	—	18,056	18,056	—	—	—	—	—	—	..	..
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	1,128	—	—	—	1,128	18,256	19,384	—	..	—	—	—	..	..	..
	1949	—	33,295	149	—	—	33,444	46,554	79,998	—	..	..	—	—	..	..	..
Seraya, Red (Seraya Merah) ..																	
North Borneo																	
(*a*) Round and Square ..	1946	—	6,663	—	—	40,291	46,954	33,203	80,157	—	..	—	—	..	..	..	..
	1947	95,538	343,640	828	—	217,193	657,199	49,161	706,360	..	..	..	—	..	..	..	..
	1948	263,882	587,435	—	—	369,293	1,220,610	47,197	1,267,807	..	..	—	—	..	..	..	..
	1949	233,415	769,501	109	—	190,440	1,193,465	64,007	1,257,472	..	..	..	—	..	..	..	..
(*b*) Sawn	1946	—	—	15	—	—	15	—	15	—	—	..	—	—	..	—	..
	1947	—	1,840	25	—	488	2,353	3,152	5,505	—	..	..	—	..	..	..	..
	1948	—	20,682	1,857	—	721	23,260	88,418	111,678	—	..	..	—	..	..	..	..
	1949	3,812	28,938	363	—	159	33,272	54,396	87,668	..	..	..	—	..	..	..	..
Urat Mata																	
North Borneo																	
(*a*) Round and Square ..	1946	—	5,579	—	—	25,858	31,437	19,179	50,616	—	..	—	—	..	..	..	..
	1947	122,292	217,554	—	—	94,178	434,024	39,171	473,195	..	..	—	—	..	..	..	..
	1948	244,190	444,296	—	—	212,345	900,831	52,220	953,051	..	..	—	—	..	..	..	..
	1949	246,853	583,490	134	—	122,967	953,444	47,010	1,000,454	..	..	..	—	..	..	..	..
(*b*) Sawn	1947	—	1,208	—	—	—	1,208	2,102	3,310	—	..	—	—	—	..	..	..
	1948	—	7,183	—	—	—	7,183	41,419	48,602	—	..	—	—	—	..	..	..
	1949	7,053	13,748	—	—	42	20,843	38,002	58,845	..	..	—	—	..	..	..	..
Utile																	
Gold Coast																	
(*a*) Logs	1948	62,020	—	1,960	—	3,220	67,200	—	67,200	16,370	—	1,026	—	1,170	18,566	—	18,566
	1949	71,100	140	—	—	4,620	75,860	—	75,860	20,952	16	—	—	1,428	22,396	—	22,396
(*b*) Sawn	1948	4,757	—	—	—	—	4,757	—	4,757	1,400	—	—	—	—	1,400	—	1,400
	1949	600	1,242	—	—	—	1,842	1,112	2,954	270	372	—	—	—	642	557	1,199
Totals	1948									17,770	—	1,026	—	1,170	19,966	—	19,966
	1949									21,222	388	—	—	1,428	23,038	557	23,595

TABLE 65: OTHER HARDWOODS (1)—(*continued*).

		Quantity (Cu. ft.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Miscellaneous Hardwoods (10) Kenya and Uganda ..	1938	—	440	—	—	—	440	—	440	—	111	—	—	—	111	—	111
	1939	—	37	19	—	75	131	—	131	—	6	5	—	23	34	—	34
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Logs	1948	28,400	5,048	—	—	312	33,760	26,721(13)	60,481	11,719	1,023	—	—	87	12,829	6,653	19,482
	1949	173,853	20,738	40	—	2,575	197,206	7,931(13)	205,137	65,014	7,001	26	—	1,114	73,155	2,975	76,130
Tanganyika	1938	—	2,464	—	—	973	3,437	975(13)	4,412	—	260	—	—	192	452	134	586
	1939	—	—	—	—	—	—	3,433(13)	3,433	—	—	—	—	—	—	937	937
	1946	—	—	—	—	—	—	23,185(13)	23,185	—	—	—	—	—	—	4,925	4,925
	1947	5,506	3,002	—	—	47,130	55,638	51,586(13)	107,224	1,661	1,113	—	—	17,695	20,469	15,985	36,454
Logs	1948	789	284	—	—	20,000	21,073	123,961(13)	145,034	631	162	—	—	5,250	6,043	40,079	46,122
	1949	52,976	2,285	787	—	10,908	66,956	3,960(13)	70,916	22,164	914	470	—	4,358	27,906	1,584	29,490
British Guiana (*a*) Logs	1938	133	—	—	—	—	133	78	211	17	—	—	—	—	17	8	25
	1939	—	—	—	—	8	8	105	113	—	—	—	—	2	2	11	13
	1946	397	—	—	—	—	397	446	843	89	—	—	—	—	89	172	261
	1947	20,502	—	5,651	130	1,477	27,760	—	27,760	6,482	—	936	24	285	7,727	—	7,727
	1948	17,646	—	—	—	—	17,646	260	17,906	5,221	—	—	—	—	5,221	114	5,335
	1949	9,142	—	—	—	—	9,142	—	9,142	2,538	—	—	—	—	2,538	—	2,538
(*b*) Sawn	1938	10	—	9	28	—	47	234	281	2	—	1	7	—	10	35	45
	1939	7	—	—	26	48	81	845	926	1	—	—	10	7	18	119	137
	1946	66	—	128	154	—	348	1,870	2,218	16	—	27	67	—	110	726	836
	1947	6,762	—	605	9	—	7,376	1,894	9,270	2,372	—	219	1	—	2,592	770	3,362
	1948	3,763	—	503	—	—	4,266	2,709	6,975	1,514	—	212	—	—	1,726	1,196	2,922
	1949	4,198	—	485	—	48	4,731	1,680	6,411	1,262	—	236	—	16	1,514	519	2,033
Totals	1938									19	371	1	7	192	590	177	767
	1939									1	6	5	10	32	54	1,067	1,121
	1946									105	—	27	67	—	199	5,823	6,022
	1947									10,515	1,113	1,155	25	17,980	30,788	16,755	47,543
	1948									19,085	1,185	212	—	5,337	25,819	48,042	73,861
	1949									90,978	7,915	732	—	5,488	105,113	5,078	110,191

N.B.—Exports of the various types of timbers were nil in the years not shown.

(1) In addition to the woods included there were small exports (See Introductory Note 5) of the following :—

Tanganyika : Sandalwood.
British Guiana : Crabwood ; Purpleheart.
British Honduras : Rosewood (Amyriswood) ; Balsawood.
Jamaica : Dogwood, Fustic ; Rosewood (Amyriswood) ; Sandalwood ; Satinwood.
Gold Coast : Antiaris Chenchen ; Ekki kaku.
Nigeria : Antiaris Chenchen ; Canarium ; Ekki kaku ; Omu.
Zanzibar Protectorate : Sandalwood.

Cayman Islands : Satinwood.

Federation of Malaya and Singapore : Teak. Malaya has a substantial entrepôt trade in Garra wood, Sandalwood and Laccawood ; its imports and exports were as follows :—

Year	*Garra wood*				*Sandalwood*				*Laccawood*			
	Imports		*Exports*		*Imports*		*Exports*		*Imports*		*Exports*	
	Quantity (Cu. ft.)	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*
1938	630	3,759	405	6,016	4,860	4,355	1,845	1,700	2,880	394	1,800	439
1939	405	4,632	450	6,532	6,660	6,475	2,025	1,763	1,845	271	945	295
1946	1,080	1,939	225	991	6,165	10,312	2,475	7,922	2,745	1,314	2,925	3,378
1947	1,080	3,723	90	3,477	4,410	24,332	1,395	4,842	2,745	1,503	585	437
1948	495	5,960	540	5,703	7,830	39,655	900	3,319	1,485	790	1,350	1,294
1949	155	5,664	223	8,675	8,071	37,617	1,195	4,751	5,834	3,436	5,930	5,740

New Hebrides : Sandalwood.

Sarawak : Garra wood ; Laccawood.

Trinidad and Tobago : Balata ; Mora.

North Borneo : Arang (Melan) ; Asam ; Bakau ; Binuang ; Dungum ; Geriting ; Jelutong ; Keranji ; Laran ; Medang ; Mengaris ; Merbau ; Miamot ; Narah ; Nyetoh ; Obah ; Penaga ; Pulai ; Resak Batu ; Resak Bunga ; Sedaman; Sepeter ; Selangam Kangkong ; Shorea and Allied Exports ; Taluto. The annual export of these items did not exceed 50,000 cubic feet in any of the years to which the table refers.

The value of the export of each kind of timber is not known, but the following table gives the total exports by quantity and value of the respective woods in the main table (including those in the footnote) for the years 1946-49 :—

Year	Type	Quantity (Cu. ft.)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
1946	Logs	—	12,242	129	—	75,643	88,014	279,292	367,306	—	..	..	—	..	..	..	40,166
	Sawn	—	1	15	—	—	16	—	16	—	..	..	—	—	..	..	
1947	Logs	236,912	578,214	1,294	—	360,605	1,177,025	640,583	1,817,608	..	..	..	—	..	..	..	191,565
	Sawn	3	3,048	27	—	488	3,566	5,254	8,820	..	..	..	—	..	..	..	
1948	Logs	580,045	1,122,706	318	—	664,464	2,367,533	761,502	3,129,035	..	..	..	—	..	..	..	318,397
	Sawn	10	27,865	3,321	—	732	31,928	145,899	177,827	..	..	..	—	..	..	..	
1949	Logs	519,565	1,552,024	1,286	—	327,389	2,400,264	893,117	3,293,381	..	..	..	—	..	..	..	631,871
	Sawn	27,266	42,685	394	—	383	70,728	170,787	241,515	..	..	..	—	..	..	..	

In the case of Bitterwood and Logwood (Jamaica) and Santa Maria (British Honduras, 1947 only), weight has been converted into volume on the basis of 1 ton=45 cu. ft.

(2) Small exports from Gold Coast have been excluded (See Introductory Note 5).

(3) „ „ „ Kenya and Uganda have been excluded (See Introductory Note 5).

(4) „ „ „ Jamaica and Nigeria „ „ „ („ „ „).

(5) „ „ „ Gold Coast „ „ „ („ „ „).

(6) „ „ „ Bahamas and Turk and Caicos Islands have been excluded (See Introductory Note 5).

(7) „ „ „ British Honduras and St. Lucia have been excluded (See Introductory Note 5).

(8) „ „ „ Nigeria have been excluded (See Introductory Note 5).

(9) „ „ „ Trinidad and Tobago have been excluded (See Introductory Note 5).

(10) „ „ „ Zanzibar Protectorate ; Gold Coast ; North Borneo ; Jamaica ; Trinidad and Tobago and Windward Islands have been excluded (See Introductory Note 5).

(11) Mainly to Kenya and Uganda which had no re-export trade in this product. In 1949 all to Zanzibar Protectorate.

(12) Tanganyika was the main destination of Kenya and Uganda's inter-colonial exports. Tanganyika's inter-colonial exports went mainly to Kenya and Uganda (except in 1947 and 1949 when the main destination was Zanzibar Protectorate) ; none of the territories had any re-export trade in this product.

(13) Kenya and Uganda's inter-colonial exports went mainly to Tanganyika in 1948 and Zanzibar Protectorate in 1949. Tanganyika's inter-colonial trade was mainly with Kenya and Uganda (except in 1949 when the main destination was Zanzibar Protectorate). Tanganyika had no re-exports of this commodity, but Kenya and Uganda re-exported (in 1948) a substantial quantity (nearly 80,000 cu. ft.) to the United Kingdom.

TABLE 66 : CEDARS (SOFTWOODS)

		Quantity (Cu. ft.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda Cedar (Hewn & Sawn)	1938	1,021	—	—	—	—	1,021	1,002	2,023	145	—	—	—	—	145	191	336
	1939	520	—	250	—	—	770	—	770	63	—	40	—	—	103	—	103
	1946(1)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947(1)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	—	—	—	—	200	200	9,094	9,294	—	—	—	—	60	60	6,187	6,247
	1949	1,250	—	21	—	—	1,271	—	1,271	531	—	10	—	—	541	—	541
Cedar Slats	1938	33,992	2,458	128	—	28,884	65,462	—	65,462	12,751	922	48	—	10,863	24,584	—	24,584
	1939	45,818	4,907	—	—	14,406	65,131	—	65,131	17,109	1,843	—	—	5,402	24,354	—	24,354
	1946	62,602	18,172	—	—	9,630	90,404	—	90,404	29,279	7,299	—	—	4,093	40,671	—	40,671
	1947	54,544	16,162	—	—	43,746	114,452	—	114,452	32,967	6,644	—	—	30,175	69,786	—	69,786
	1948(2)	83,076	3,200	4	—	79,514	165,794	6,600	172,394	63,018	1,741	4	—	62,826	127,589	3,277	130,866
	1949(2)	140,772	3,700	—	—	64,775	209,247	5,396	214,643	103,680	2,236	—	—	50,318	156,234	1,817	158,051
Totals	1938									12,896	922	48	—	10,863	24,729	191	24,920
	1939									17,172	1,843	40	—	5,402	24,457	—	24,457
	1946									29,279	7,299	—	—	4,093	40,671	—	40,671
	1947									32,967	6,644	—	—	30,175	69,786	—	69,786
	1948									63,018	1,741	4	—	62,886	127,649	9,464	137,113
	1949									104,211	2,236	10	—	50,318	156,775	1,817	158,592

N.B.—Small exports from Tanganyika have been excluded (See Introductory Note 5).

(1) Cedar was not separately enumerated in these years.
(See other Softwoods, Table 67 " Podo, Cedar and other Coniferous ".)

(2) Pencil Slats.

TABLE 67 : OTHER SOFTWOODS

Colony, etc.	Year	Quantity (Cu. ft.)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda																	
Podo, Cedar and other Coniferous Hewn and Sawn (1)	1946	2,602	114,852	23	—	114,826	232,303	31,601(4)	263,904	602	35,207	12	—	27,558	63,379	7,260	70,639
	1947	62,383	21,112	3,000	—	1,251,703	1,338,198	67,988(4)	1,406,186	23,925	6,047	713	—	278,459	309,144	17,748	326,892
Planed and Dressed Podocarpus logs (1) ..	1946	1,500	32	—	—	—	1,532	—	1,532	375	5	—	—	—	380	—	380
	1947	1,000	—	—	—	—	1,000	190(4)	1,190	425	—	—	—	—	425	150	575
	1948	67,849	12,989	—	—	755,405	836,243	22,583(4)	858,826	24,199	3,862	—	—	193,786	221,847	5,670	227,517
	1949	168,237	17,580	—	—	42,091	227,908	34,000(4)	261,908	54,491	6,996	—	—	17,228	78,715	9,559	88,274
Tanganyika																	
Podocarpus unspecified (1)	1946	—	259	—	—	1,544	1,803	36,772(4)	38,575	—	91	—	—	327	418	8,213	8,631
	1947	3,382	5,695	—	—	304	9,381	51,993(4)	61,374	1,040	2,060	—	—	70	3,170	12,148	15,318
Logs	1948	8,075	—	—	—	—	8,075	95,585(4)	103,660	3,576	—	—	—	—	3,576	27,937	31,513
	1949	145,302	12,380	—	—	4,350	162,032	9,137(4)	171,169	68,312	5,974	—	—	1,400	75,686	2,043	77,729
Totals	1946									977	35,303	12	—	27,885	64,177	15,473	79,650
	1947									25,390	8,107	713	—	278,529	312,739	30,046	342,785
	1948									27,775	3,862	—	—	193,786	225,423	33,607	259,030
	1949									122,803	12,970	—	—	18,628	154,401	11,602	166,003
West Indies																	
British Honduras																	
Pine (sawn) Rough lumber (2) ..	1946	—	—	7,941	—	10,063	18,004	100,112	118,116	—	—	1,640	—	2,823	4,463	29,699	34,162
	1947	8,346	—	7,043	21	64,121	79,531	56,967	136,498	1,911	—	2,743	6	19,117	23,777	14,248	38,025
	1948	—	—	5,264	—	16,171	21,435	377,650	399,085	—	—	2,400	—	4,032	6,432	97,427	103,859
Dressed lumber (2) ..	1946	—	—	1,431	—	—	1,431	18,674	20,105	—	—	362	—	—	362	7,650	8,012
	1947	—	—	791	1,302	215	2,308	195	2,503	—	—	281	509	53	843	68	911
	1948	—	—	9,694	—	283	9,977	4,729	14,706	—	—	4,455	—	51	4,506	1,638	6,144
Rough and Dressed lumber	1949	—	—	12,175	—	247	12,422	430,704	443,126	—	—	3,526	—	66	3,592	143,798	147,390
Trinidad and Tobago																	
Sawn Rough(3) ..	1947	—	—	—	—	—	—	850	850	—	—	—	—	—	—	339	339
	1948	9,750	—	—	—	—	9,750	42	9,792	3,175	—	—	—	—	3,175	18	3,193
	1949	31,174	—	9,775	—	4,167	45,116	4,377	49,493	10,389	—	2,854	—	1,302	14,545	1,325	15,870
Hewn(3)	1949	14,260	—	12,000	—	700	26,960	—	26,960	4,124	—	2,032	—	29	6,185	—	6,185
Totals	1946									—	—	2,002	—	2,823	4,825	37,349	42,174
	1947									1,911	—	3,024	515	19,170	24,620	14,655	39,275
	1948									3,175	—	6,855	—	4,083	14,113	99,083	113,196
	1949									14,513	—	8,412	—	1,397	24,322	145,123	169,445

TABLE 67: OTHER SOFTWOODS—*(continued)*.

		Quantity (Cu. ft.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Western Pacific																	
New Hebrides(3) ..	1947	—	..	—	—	—	..	—	..	—	1,310	—	—	—	1,310	—	1,310
Kauri Pine	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	—	42,082	—	—	—	42,082	—	42,082	—	16,717	—	—	—	16,717	—	16,717
Totals	1946									977	35,303	2,014	—	30,708	69,002	52,822	121,824
	1947									27,301	9,417	3,737	515	297,699	338,669	44,701	383,370
	1948									30,950	3,862	6,855	—	197,869	239,536	132,690	372,226
	1949									137,316	29,687	8,412	—	20,025	195,440	156,725	352,165

N.B.—Other Exporters (See Introductory Note 5); Jamaica (Yacca).

(1) Not separately enumerated in 1938 and 1939.
(2) There were no exports in 1938 and 1939.
(3) There were no exports in previous years.
(4) The inter-colonial exports of Kenya and Uganda mainly went to Tanganyika and vice versa. Kenya and Uganda's imports were almost wholly from Tanganyika and its re-exports were as follows :

Years	*U.K.*	*Other parts of Sterling Area*	*Others*	*Total*
		Quantity (000 *Cu. Ft.*)		
1946	3	51	7	61
1947	39	53	1	93
1948	72	1	—	73
		Value £		
1946	1,254	14,484	2,228	17,966
1947	16,439	19,604	557	36,600
1948	32,196	450	—	32,646

Tanganyika's re-export trade was negligible.

Colony, etc.	Year	Quantity								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Tanganyika (1)	1946	—	—	—	—	132,301	132,301	3,920	136,221	—	—	—	—	26,529	26,529	897	27,426
	1947	—	—	—	—	16,286	16,286	—	16,286	—	—	—	—	2,991	2,991	—	2,991
Northern Rhodesia ..	1938	—	..	—	—	—	..	—	..	—	127,183	—	—	—	127,183	—	127,183
	1939	—	..	—	—	—	..	—	..	—	60,411	—	—	—	60,411	—	60,411
	1946	—	..	—	—	—	..	—	..	—	108,579	—	—	—	108,579	—	108,579
	1947	—	..	—	—	—	..	—	..	—	139,417	—	—	—	139,417	—	139,417
	1948	—	..	—	—	—	..	—	..	—	129,204	—	—	—	129,204	—	129,204
	1949	—	337,578	—	—	—	337,578	—	337,578	—	141,335	—	—	—	141,335	—	141,335
Totals	1938									—	127,183	—	—	—	127,183	—	127,183
	1939									—	60,411	—	—	—	60,411	—	60,411
	1946									—	108,579	—	—	26,529	135,108	897	136,005
	1947									—	139,417	—	—	2,991	142,408	—	142,408
	1948									—	129,204	—	—	—	129,204	—	129,204
	1949									—	141,335	—	—	—	141,335	—	141,335
Eastern																	
Federation of Malaya and Singapore (2)	1938	—	—	—	—	—	—	8,913(3)	8,913	—	—	—	—	—	—	728	728
	1939	—	—	—	—	—	—	2,800(3)	2,800	—	—	—	—	—	—	237	237
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	38	—	—	—	38	91,600	91,638	—	14	—	—	—	14	32,667	32,681
	1949	—	2,254	—	—	—	2,254	17,017	19,271	—	736	—	—	—	736	7,059	7,795
West Indies																	
British Guiana	1938	—	—	19	—	200	219	12,049	12,268	—	—	2	—	25	27	1,502	1,529
	1939	320	—	290	—	904	1,514	11,293	12,807	13	—	10	—	83	106	1,461	1,567
	1946	—	—	—	—	—	—	30,934	30,934	—	—	—	—	—	—	2,974	2,974
	1947	—	—	—	323	53,004	53,327	18,707	72,034	—	—	—	73	14,310	14,383	3,918	18,301
	1948	—	—	—	—	13,124	13,124	10,224	23,348	—	—	—	—	4,332	4,332	2,476	6,808
	1949	—	—	—	—	—	—	8,045	8,045	—	—	—	—	—	—	2,046	2,046
Grand Totals	1938									—	127,183	2	—	25	127,210	2,230	129,440
	1939									13	60,411	10	—	83	60,517	1,698	62,215
	1946									—	108,579	—	—	26,529	135,108	3,871	138,979
	1947									—	139,417	—	73	17,301	156,791	3,918	160,709
	1948									—	129,218	—	—	4,332	133,550	35,143	168,693
	1949									—	142,071	—	—	—	142,071	9,105	151,176

N.B.—Other exporters (See Introductory Note 5) : Kenya and Uganda.

(1) There were no exports in 1938, 1939, 1948 and 1949.

(2) Imports of Malaya were as follows :—

Year	*Quantity (Cu. ft.)*	*Value (£)*
1938	—	—
1939	—	—
1946	—	—
1947	61,065	5,984
1948	—	—
1949	4,674	1,634

(3) Hong Kong.

G. TIMBER

TABLE 69 : MISCELLANEOUS TIMBER (1)

			Quantity								Value (£)							
Colony, etc.	Year	Unit	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																		
Kenya and Uganda(2)																		
Timber : hewn or sawn	1938	Cu. ft.	2,557	1,500	—	—	5,991	10,048	48,250(6)	58,298	500	225	—	—	742	1,467	7,080	8,547
	1939	,,	2,729	5,678	394	—	24,169	32,970	34,246(6)	67,216	442	882	57	—	3,458	4,839	5,338	10,177
	1946	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	,,	10,262	11,889	—	—	1,877	24,028	—	24,028	3,251	4,335	—	—	610	8,196	—	8,196
	1949	,,	3,183	—	—	—	—	3,183	—	3,183	1,433	—	—	—	—	1,433	—	1,433
Planed or dressed	1938	,,	—	—	—	—	679	679	—	679	—	—	—	—	145	145	—	145
	1939	,,	8	—	—	—	—	8	—	8	4	—	—	—	—	4	—	4
	1946	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	,,	6,619	937	—	—	—	7,556	792(6)	8,348	2,859	288	—	—	—	3,147	525	3,672
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unspecified ..	1938	Cu. ft.	—	560	—	—	757	1,317	—	1,317	—	45	—	—	95	140	—	140
	1939	,,	—	—	—	—	6,883	6,883	82(6)	6,965	—	—	—	—	845	845	13	858
	1946	,,	46	4,158	—	—	846	5,050	2,200(6)	7,250	10	1,660	—	—	390	2,060	538	2,598
	1947	,,	1,526	—	31	—	8	1,565	2,500(6)	4,065	900	—	20	—	3	923	594	1,517
	1948	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1949	,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mangrove poles	1938	Nos.	—	199,032	—	—	214,828	413,860	22,462(6)	436,322	—	1,980	—	—	2,355	4,335	180	4,515
	1939	,,	—	267,082	—	—	227,306	494,388	7,693(6)	502,081	—	2,876	—	—	2,669	5,545	30	5,575
	1946	,,	—	99,220	—	—	62,936	162,156	15,440(6)	177,596	—	2,606	—	—	1,534	4,140	347	4,487
	1947	,,	—	222,588	—	—	73,585	296,173	—	296,173	—	5,325	—	—	2,970	8,295	—	8,295
	1948	,,	—	251,060	—	—	34,860	285,920	23,720(6)	309,640	—	14,949	—	—	2,435	17,384	758	18,142
	1949	,,	—	150,300	—	—	4,460	154,760	8,700(6)	163,460	—	4,647	—	—	113	4,760	332	5,092
Tanganyika (2) Unspecified ..	1938	,,	—	9,689	—	—	3,502	13,191	5,696(6)	18,887	—	1,461	—	—	840	2,301	911	3,212
	1939	,,	3,207	4,314	—	—	1,913	9,434	11,547(6)	20,981	853	483	—	—	367	1,703	1,707	3,410
Timber : Hewn or sawn	1946	Cu. ft.	—	7,256	—	—	100,988	108,244	10,795(6)	119,039	—	2,149	—	—	21,323	23,472	2,172	25,644
	1947	,,	584	3,741	—	—	158,742	163,067	41,056(6)	204,123	198	11,117	—	—	49,745	51,060	12,082	63,142
	1948	,,	1,470	—	—	—	15,648	17,118	11,437(6)	28,555	436	—	—	—	6,259	6,695	4,025	10,720
	1949	,,	3,012	—	—	—	—	3,012	—	3,012	1,338	—	—	—	—	1,338	—	1,338
Planed or dressed	1946	,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	,,	—	—	—	—	43,377	43,377	2,801(6)	46,178	—	—	—	—	9,558	9,558	767	10,325
	1948	,,	—	—	—	—	—	—	602(6)	602	—	—	—	—	—	—	269	269
	1949	,,	—	—	—	—	—	—	400(6)	400	—	—	—	—	—	—	264	264
Mangrove poles	1938	Nos.	—	—	—	—	41,960	41,960	43,420(6)	85,380	—	—	—	—	1,285	1,285	1,022	2,307
	1939	,,	—	—	—	—	67,620	67,620	66,780(6)	134,400	—	—	—	—	1,920	1,920	1,819	3,739
	1946	,,	—	16,160	—	—	9,440	25,600	250,380(6)	275,980	—	762	—	—	576	1,338	7,670	9,008
	1947	,,	—	184,940	—	—	133,040	317,980	10,940(6)	328,920	—	6,712	—	—	2,498	9,210	514	9,724
	1948	,,	—	297,900	—	—	3,200	301,100	63,080(6)	364,180	—	12,687	—	—	120	12,807	2,158	14,965
	1949	,,	—	64,400	—	—	—	64,400	97,220(6)	161,620	—	1,665	—	—	—	1,665	5,458	7,123
Northern Rhodesia Wood, unmanufactured	1938	Cu. ft.	—	404,797	—	—	31,704	436,501	—	436,501	—	40,318	—	—	348	40,666	—	40,666
	1939	,,	—	423,209	—	—	35,806	459,015	—	459,015	—	39,866	—	—	429	40,295	—	40,295
	1946	,,	—	132,820	—	—	—	132,820	—	132,820	—	24,811	—	—	—	24,811	—	24,811
	1947	,,	—	104,148	—	—	—	104,148	—	104,148	—	32,966	—	—	—	32,966	—	32,966
	1948	,,	94	152,973	—	—	—	153,069	[illegible]	[illegible]	60	61,253	—	—	—	61,313	—	61,313
	1949	,,	236	123,267	—	—	—	123,503	[illegible]	[illegible]	23	44,699	—	—	—	44,723	49	44,772

			Quantity								Value (£)							
Colony, etc.	Year	Unit	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
Northern Rhodesia—(*continued*).																		
Firewood	1938	Cu. ft.	—	31,906	—	—	91,609	123,515	—	123,515	—	165	—	—	164	329	—	329
	1939	,,	—	13,321	—	—	105,276	118,597	—	118,597	—	92	—	—	100	192	—	192
	1946	,,	—	..	—	—	..	..	—	..	—	7,018	—	—	2,970	9,988	—	9,988
	1947	,,	—	..	—	—	..	..	—	..	—	2,358	—	—	8,855	11,213	—	11,213
	1948	,,	..	..	—	—	..	..	—	..	1	418	—	—	9,698	10,117	—	10,117
	1949	,,	—	—	—	—	..	..	—	..	—	—	—	—	7,987	7,987	—	7,987
Totals	1938										500	44,194	—	—	5,974	50,668	9,193	59,861
	1939										1,299	44,199	57	—	9,788	55,343	8,907	64,250
	1946										10	39,006	—	—	26,793	65,809	10,727	76,536
	1947										1,098	48,478	20	—	73,629	123,225	13,957	137,182
	1948										6,607	93,930	—	—	19,122	119,659	7,735	127,394
	1949										2,795	51,011	—	—	8,100	61,902	6,103	68,009
West Africa																		
Gold Coast :																		
Timber (other than those included in Tables 62-68) :																		
Unspecified	1938	Cu. ft.	—	—	253	—	2,061	2,314	—	2,314	—	—	29	—	52	81	—	81
	1939	,,	631	—	—	—	1,556	2,187	—	2,187	65	—	—	—	42	107	—	107
Logs ..	1946	,,	30,956	2,840	211,295	9,088	23,004	277,183	—	277,183	5,210	318	42,352	1,650	4,245	53,775	—	53,775
	1947	,,	249,727	—	246,483	—	—	496,210	—	496,210	47,809	—	59,477	—	—	107,286	—	107,286
	1948	,,	65,100	—	20,860	5,460	351	91,771	—	91,771	11,635	—	7,205	477	61	19,378	—	19,378
	1949	,,	105,560	—	9,800	—	3,780	119,140	211	119,351	30,599	—	1,893	—	2,112	34,604	63	34,667
Sawn ..	1946	,,	6,580	6,554	—	—	—	13,134	—	13,134	1,983	1,658	—	—	—	3,641	—	3,641
	1947	,,	17,960	—	16,284	—	200	34,444	—	34,444	4,865	—	14,497	—	35	19,397	—	19,397
	1948	,,	19	—	410	—	1	430	2,210	2,640	8	—	232	—	5	245	663	908
	1949	,,	8,143	4,872	663	—	—	13,678	3,477	17,155	3,222	2,200	198	—	—	5,620	1,263	6,883
Nigeria :																		
Timber (other than those included in Tables 62-68) :																		
Unspecified	1938	Cu. ft.	13,912	1,320	2,280	—	61,018	78,530	600	79,130	2,110	200	110	—	1,512	3,932	443	4,375
	1939	,,	5,818	787	—	—	94,181	100,786	173	100,959	440	177	—	—	3,395	4,012	35	4,047
Logs ..	1946	,,	435,091	5,874	—	—	8	440,973	—	440,973	30,935	803	—	—	1	31,739	—	31,739
	1947	,,	517,110	8,178	1,189	—	57,014	583,491	—	583,491	100,442	1,157	329	—	5,087	107,015	—	107,015
	1948	,,	668,954	9,320	—	—	18,226	696,500	—	696,500	135,682	1,644	—	—	4,607	141,933	—	141,933
	1949	,,	356,988	13,349	—	—	29,841	400,178	200	400,378	70,444	2,125	—	—	6,375	78,944	46	78,990
Sawn ..	1946	,,	16,302	9,378	—	—	11	25,691	125	25,816	3,968	3,309	—	—	4	7,281	21	7,302
	1947	,,	9,317	2,883	19	—	—	12,219	893	13,112	2,258	453	10	—	—	2,721	257	2,978
	1948	,,	5,985	120	2	—	1,512	7,619	4,442	12,061	1,991	69	1	—	109	2,170	1,442	3,612
	1949	,,	9,063	—	—	—	—	9,063	1,197	10,260	3,489	—	—	—	—	3,489	532	4,021
Totals	1938										2,110	200	139	—	1,564	4,013	443	4,456
	1939										505	177	—	—	3,437	4,119	35	4,154
	1946										42,096	6,088	42,352	1,650	4,250	96,436	21	96,457
	1947										155,374	1,610	74,313	—	5,122	236,419	257	236,676
	1948										149,316	1,713	7,438	477	4,782	163,726	2,105	165,831
	1949										107,754	4,325	2,091	—	8,487	122,657	1,904	124,561

G. TIMBER

TABLE 69: MISCELLANEOUS TIMBER (1)—*(continued)*.

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																		
Fed. of Malaya and Singapore (3) : Sawn (large dimensions)	1938	Cu. ft.	1,381	2,766	—	—	33,000	37,147	47,988	85,135	134	188	—	—	1,781	2,103	2,487	4,590
	1939	,,	3,025	8,334	198	—	52,384	63,941	68,587	132,528	278	520	42	—	3,302	4,142	3,914	8,056
	1946	,,	—	—	—	—	80,910	80,910	37,169	118,079	—	—	—	—	26,887	26,887	12,283	39,170
	1947	,,	189	3,489	—	—	63,851	67,529	63,029	130,558	58	1,129	—	—	18,212	19,399	16,711	36,110
	1948	,,	14,639	32,881	117	—	115,870	163,507	17,061	180,568	5,481	7,864	46	—	28,821	42,212	5,822	48,034
	1949	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sawn (small dimensions)	1938	,,	35,153	5,688	—	—	445,635	486,476	276,829	763,305	3,586	363	—	—	26,231	30,180	16,203	46,383
	1939	,,	48,729	7,928	—	—	401,529	458,186	621,137	1,079,323	4,480	476	—	—	24,826	29,782	38,921	68,703
	1946	,,	—	—	—	—	539,190	539,190	512,889	1,052,079	—	—	—	—	177,825	177,825	80,613	258,438
	1947	,,	3,083	45,448	—	—	388,699	437,230	243,395	680,625	1,290	13,252	—	—	108,820	123,362	65,750	189,112
	1948	,,	71,687	91,324	300	—	1,046,161	1,209,472	313,153	1,522,625	25,798	23,183	117	—	261,747	310,845	75,795	386,640
(Large and small)	1949	,,	744,530	715,986	495	—	1,002,568	2,463,579	846,946	3,310,525	298,984	208,698	175	—	254,832	762,689	193,896	956,585
Brunei : Firewood ..	1938	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1939	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1946	Tons	..	..	..	..	..	..	..	12,142	..	..	..	..	..	..	..	7,616
	1947	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	,,	..	..	..	..	..	..	..	3,804	..	..	..	..	..	..	..	4,559
	1949	,,	—	—	—	—	—	—	14,727(7)	14,727	—	—	—	—	—	—	20,974	20,974
North Borneo : Unspecified ..	1938	Cu. ft.	821,260	509,510	4,305	—	1,802,775	3,137,850	1,524,765	4,662,615	..	..	..	—	..	..	..	254,004
	1939	,,	791,527	254,028	2,522	—	2,908,755	3,956,832	1,463,032	5,419,864	..	..	..	—	..	..	..	284,203
Firewood ..	1938	Tons	..	..	..	..	..	..	..	39,005	..	..	..	..	..	..	..	19,180
	1939	,,	..	..	..	..	..	..	..	64,936	..	..	..	..	..	..	..	38,184
	1946	,,	..	..	..	..	..	..	..	3,309	..	..	..	..	..	..	..	4,857
	1947	,,	..	..	..	..	..	..	..	35,414	..	..	..	..	..	..	..	41,529
	1948	,,	..	..	..	..	..	..	..	34,202	..	..	..	..	..	..	..	43,987
	1949	,,	—	—	—	—	—	—	74,757(7)	74,757	—	—	—	—	—	—	174,745	174,745
Sarawak : Timber : Unspecified ..	1938	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,394
	1939	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,530
Logs	1946	Tons	..	..	..	..	..	..	..	3,008	..	..	..	..	..	..	..	3,007
	1947	,,	..	..	..	..	..	..	..	5,699	..	..	..	..	..	..	..	27,243
	1948	,,	..	..	..	..	..	..	..	11,487	..	..	..	..	..	..	..	46,356
	1949	,,	..	..	..	..	..	..	..	25,947	..	..	..	..	..	..	..	118,638
Sawn ..	1948	,,	..	..	..	..	..	..	..	9,641	..	..	..	..	..	..	..	88,783
	1949	,,	..	..	..	..	..	..	..	10,660	..	..	..	..	..	..	..	116,900
Firewood ..	1949	,,	..	..	..	..	..	..	..	3,422	..	..	..	..	..	..	..	6,108
Totals .. .. (Excluding Brunei)	1938										..	..	..	..		..	..	328,551
	1939										..	..	..	..		..	..	405,676
	1946										..	..	..	..		..	..	305,472
	1947										..	..	..	..		..	..	293,994
	1948										..	..	..	..		..	..	613,800
	1949										..	..	..	..		..	..	1,774,755

TABLE 69: MISCELLANEOUS TIMBER (1)—(*continued*).

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Atlantic and Indian Oceans																		
Bahamas :																		
Lumber ..	1938	Thous.	—	—	—	—	403	403	900	1,303	—	—	—	—	2,162	2,162	6,772	8,934
	1939	feet	—	—	—	—	381	381	2,024	2,405	—	—	—	—	2,145	2,145	13,600	15,745
	1946	,,	—	—	36	—	711	747	26	773	—	—	550	—	11,025	11,575	590	12,165
	1947	,,	—	—	49	—	897	946	19	965	—	—	2,477	—	35,067	37,544	524	38,068
	1948	,,	—	—	12	—	1,371	1,383	1,964	3,347	—	—	249	—	29,028	29,277	41,626	70,903
	1949	,,	—	—	33	—	1,997	2,030	6,241	8,271	—	—	933	—	41,976	42,909	154,581	197,490
West Indies																		
British Guiana (4) :																		
Firewood ..	1938	Tons	—	—	—	—	45	45	12,277	12,322	—	—	—	—	23	23	5,837	5,860
	1939	,,	—	—	3	—	117	120	13,038	13,158	—	—	1	—	71	72	6,343	6,415
	1946	,,	—	—	—	—	336	336	5,190	5,526	—	—	—	—	386	386	6,218	6,604
	1947	,,	—	—	—	—	456	456	8,139	8,595	—	—	—	—	545	545	9,834	10,379
	1948	,,	54	—	—	—	224	278	7,894	8,172	65	—	—	—	287	352	9,866	10,218
	1949	,,	—	—	—	—	170	170	8,867	9,037	—	—	—	—	229	229	11,490	11,719
Western Pacific																		
British Solomon Islands (5)																		
Timber ..	1938	Cu. ft.	—	247,901	—	—	—	247,901	—	247,901	—	11,251	—	—	—	11,251	—	11,251
	1939	,,	—	142,806	—	—	—	142,806	—	142,806	—	6,740	—	—	—	6,740	—	6,740
	1946	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1948	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1949	,,	..	..	..	..	..	..	..	98,441	..	..	..	..	..	..	..	13,146
Grand Totals .. (Excluding Brunei and British Solomon Islands)	1938										..	..	..	..	..	..	..	407,662
	1939										..	..	..	..	..	..	..	496,240
	1946										..	..	..	..	..	..	..	497,234
	1947										..	..	..	..	..	..	..	716,299
	1948										..	..	..	..	..	..	..	988,146
	1949										..	..	..	..	..	..	..	1,836,326

N.B.—Other Exporters (See Introductory Note 5) : Zanzibar Protectorate, Nyasaland Protectorate, Gambia, Sierra Leone, British Honduras, Jamaica, Leeward Islands, Trinidad and Tobago, Windward Islands, Fiji and Mauritius.

(1) In addition, various Colonial territories produce and export such items as boxes, cases, crates, blocks and strips for parquet flooring, veneers, plywood, poles, etc. (other than mangrove poles), shingles and quassia chips.

(2) Also small exports of firewood (See Introductory Note 5).

G. TIMBER

(3) Imports into Federation of Malaya and Singapore were as follows :—

Year	*Sawn*			
	Large dimensions		*Small dimensions*	
	Quantity (Cu. ft.)	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*
1938	66,920	7,148	82,985	10,126
1939	48,427	5,303	69,862	7,592
1946	11,281	5,361	40,403	11,529
1947	15,604	7,343	45,407	13,913
1948	32,363	5,281	33,221	10,105
1949	..	..	144,873	22,037

Malaya was substantially an importer of Saw-Logs, Firewood and Other Sorts ; its imports and exports were as follows :—

Year	*Saw-Logs*				*Firewood*				*Other Sorts*			
	Imports		*Exports*		*Imports*		*Exports*		*Imports*		*Exports*	
	Quantity (Cu. ft.)	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*	*Quantity (Tons)*	*Value (£)*	*Quantity (Tons)*	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*	*Quantity (Cu. ft.)*	*Value (£)*
1938	4,979,595	139,505	1,000	89	82,729	50,260	3,250	3,509	70,001	1,717	2,334	189
1939	4,620,281	137,546	6,735	395	92,161	60,332	34,446	32,418	77,122	5,494	1,478	185
1946	2,105,627	223,933	—	—	64,966	238,558	2,195	7,835	54,608	6,327	11,127	8,891
1947	1,585,363	175,305	6,500	1,301	60,836	202,879	6,649	16,914	23,024	5,717	2,238	3,059
1948	1,529,784	186,950	51,803	9,330	78,234	220,370	6,042	12,516	12,002	13,294	3,510	1,842
1949	2,434,376	264,937	94,740	14,324	80,200	216,068	27,397	63,323	9,828	6,498	1,166	1,226

(4) Also small exports of other woods (See Introductory Note 5).

(5) 1938 figures : April 1938—March 1939 inclusive.
1939 figures : April 1939—March 1940 inclusive.

(6) *Miscellaneous timber other than Mangrove Poles* : Kenya and Uganda's inter-colonial exports went mainly to Tanganyika, and vice versa. Kenya and Uganda's re-exports went mainly to Tanganyika, and the latter's small re-exports went generally to Kenya and Uganda.

Mangrove Poles : In the post-war years Kenya and Uganda's inter-colonial exports went mainly to Tanganyika, while the latter's went mainly to Zanzibar. Kenya and Uganda's re-exports were negligible and Tanganyika had no re-exports in this product.

(7) Hong Kong.

Value (£)

Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa Kenya and Uganda ..	1938	4,658	83	84	—	33,352	38,177	8,265(3)	46,442	8,951	121	161	—	70,702	79,935	21,810	101,745
	1939	9,298	257	603	—	23,863	34,021	11,398(3)	45,419	20,578	336	1,241	—	47,174	69,329	28,681	98,010
	1946	6,648	105	119	—	2,676	9,548	1,368(3)	10,916	28,916	380	265	—	24,123	53,684	6,348	60,032
(a) Sun Dried	1947	12,712	—	—	—	89	12,801	1,067(3)	13,868	87,955	—	—	—	328	88,283	6,842	95,125
	1948(1)	11,182	35	—	—	—	11,217	1,634(3)	12,851	72,406	152	—	—	—	72,558	10,207	82,765
	1949(1)	12,922	—	—	—	—	12,922	—	12,922	81,854	—	—	—	—	81,854	—	81,854
(b) Shade Dried	1938	4,729	132	—	—	23,165	28,026	2,984(3)	31,010	11,639	368	—	—	68,903	80,910	8,164	89,074
	1939	5,502	520	70	—	13,806	19,898	3,432(3)	23,330	15,327	1,461	300	—	37,931	55,019	9,556	64,575
	1946	33,062	—	1,132	—	585	34,779	4,740(3)	39,519	205,547	—	5,562	—	4,851	215,960	25,336	241,296
	1947	50,018	—	—	—	—	50,018	8,536(3)	58,554	447,558	—	—	—	—	447,558	68,966	516,524
	1948(1)	54,618	—	—	—	—	54,618	9,417(3)	64,035	476,278	—	—	—	—	476,278	69,108	545,386
	1949(1)	70,776	3	—	—	9	70,788	—	70,788	605,701	49	—	—	45	605,795	—	605,795
Totals	1938	9,387	215	84	—	56,517	66,203	11,249(3)	77,452	20,590	489	161	—	139,605	160,845	29,974	190,819
	1939	14,800	777	673	—	37,669	53,919	14,830(3)	68,749	35,905	1,797	1,541	—	85,105	124,348	38,237	162,585
	1946	39,710	105	1,251	—	3,261	44,327	6,108(3)	50,435	234,463	380	5,827	—	28,974	269,644	31,684	301,328
	1947	62,730	—	—	—	89	62,819	9,603(3)	72,422	535,513	—	—	—	328	535,841	75,808	611,649
	1948(1)	65,800	35	—	—	—	65,835	11,051(3)	76,886	548,684	152	—	—	—	548,836	79,315	628,151
	1949(1)	83,698	3	—	—	9	83,710	—	83,710	687,555	49	—	—	45	687,649	—	687,649
Tanganyika	1938	4,500	80	—	—	37,900	42,480	6,460(3)	48,940	12,164	228	—	—	100,997	113,389	12,657	126,046
	1939	8,600	200	10,040	—	31,900	50,740	7,240(3)	57,980	18,690	475	30,069	—	79,908	129,142	13,797	142,939
(a) Sun Dried	1946	29,260	320	380	—	120	30,080	5,040(3)	35,120	107,322	437	1,345	—	490	109,594	20,235	129,829
	1947	42,180	400	20	—	1,480	44,080	3,240(3)	47,320	209,092	569	56	—	4,303	214,020	15,312	229,332
	1948	21,344	60	—	—	—	21,404	2,510(3)	23,914	123,800	84	—	—	—	123,884	10,782	134,666
	1949	29,598	38	—	—	—	29,636	—	29,636	165,100	54	—	—	—	165,154	—	165,154
(b) Shade Dried	1938	1,340	60	—	—	5,460	6,860	3,260(3)	10,120	4,139	226	—	—	20,152	24,517	9,465	33,982
	1939	3,520	—	80	—	5,440	9,040	3,400(3)	12,440	10,643	—	340	—	19,924	30,907	9,915	40,822
	1946	11,000	—	80	—	—	11,080	5,580(3)	16,660	46,531	—	325	—	—	46,856	28,818	75,674
	1947	14,960	—	—	—	—	14,960	6,040(3)	21,000	98,671	—	—	—	—	98,671	39,786	138,457
	1948	19,745	—	—	—	—	19,745	7,770(3)	27,515	136,176	—	—	—	—	136,176	50,332	186,508
	1949	36,982	—	—	—	—	36,982	—	36,982	275,341	—	—	—	—	275,341	—	275,341
Totals	1938	5,840	140	—	—	43,360	49,340	9,720(3)	59,060	16,303	454	—	—	121,149	137,906	22,122	160,028
	1939	12,120	200	10,120	—	37,340	59,780	10,640(3)	70,420	29,333	475	30,409	—	99,832	160,049	23,712	183,761
	1946	40,260	320	460	—	120	41,160	10,620(3)	51,780	153,853	437	1,670	—	490	156,450	49,053	205,503
	1947	57,140	400	20	—	1,480	59,040	9,280(3)	68,320	307,763	569	56	—	4,303	312,691	55,098	367,789
	1948	41,089	60	—	—	—	41,149	10,280(3)	51,429	259,976	84	—	—	—	260,060	61,114	321,174
	1949	66,580	38	—	—	—	66,618	—	66,618	440,441	54	—	—	—	440,495	—	440,495
Northern Rhodesia	1938	—	6,484	—	—	—	6,484	6	6,490	—	12,810	—	—	—	12,810	7	12,817
	1939	—	6,632	—	—	—	6,632	3	6,635	—	13,910	—	—	—	13,910	5	13,915
	1946	—	9,599	—	—	2,863	12,462	70	12,532	—	46,896	—	—	20,863	67,759	268	68,027
	1947	4	10,300	—	—	3,351	13,655	23	13,678	37	71,297	—	—	30,066	101,400	82	101,482
	1948	—	17,127	—	—	3,986	21,113	25	21,138	—	118,943	—	—	32,780	151,723	90	151,813
	1949	—	21,804	—	—	5,598	27,402	20	27,422	—	160,160	—	—	49,733	209,893	106	209,999
Totals	1938	15,227	6,839	84	—	99,877	122,027	20,975	143,002	36,893	13,753	161	—	260,754	311,561	52,103	363,664
	1939	26,920	7,609	10,793	—	75,009	120,331	25,473	145,804	65,238	16,182	31,950	—	184,937	298,307	61,954	360,261
	1946	79,970	10,024	1,711	—	6,244	97,949	16,798	114,747	388,316	47,713	7,497	—	50,327	493,853	81,005	574,858
	1947	119,874	10,700	20	—	4,920	135,514	18,906	154,420	843,313	71,866	56	—	34,697	949,932	130,988	1,080,920
	1948	106,889	17,222	—	—	3,986	128,097	21,356	149,453	808,660	119,179	—	—	32,780	960,619	140,519	1,101,138
	1949	150,278	21,845	—	—	5,607	177,730	20	177,750	1,127,996	160,263	—	—	49,778	1,338,037	106	1,338,143
West Africa Gold Coast	1938	140	—	—	—	2,310	2,450	—	2,450	426	—	—	—	5,920	6,346	—	6,346
	1939	167	—	—	—	1,669	1,836	—	1,836	383	—	—	—	2,824	3,207	—	3,207
	1946	50	—	—	—	—	50	—	50	215	—	—	—	—	215	—	215
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	300	—	—	—	100	400	—	400	1,812	—	125	—	470	2,407	—	2,407
	1949	820	—	—	—	—	820	400	1,220	2,051	—	—	—	32	2,083	957	3,040

TABLE 70: CATTLE HIDES (RAW)—(*continued*).

(SEE ALSO "OTHER HIDES AND SKINS (RAW)," TABLE 75.)

Colony, etc.	Year	Quantity (Cwts.)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
Nigeria	1938	21,179	—	23	—	42,026	63,228	2	63,230	48,815	—	56	—	104,410	153,281	7	153,288
	1939	39,438	—	119	—	45,905	85,462	—	85,462	89,312	—	381	—	100,913	190,606	—	190,606
	1946	57,856	—	2,808	—	—	60,664	—	60,664	279,633	—	10,329	—	—	289,962	—	289,962
	1947	104,654	—	—	—	53	104,707	—	104,707	903,067	—	—	—	225	903,292	—	903,292
	1948	112,280	—	360	—	200	112,840	—	112,840	1,036,419	—	8,814	—	1,109	1,046,342	—	1,046,342
	1949	111,640	—	2,980	—	20	114,640	—	114,640	1,103,747	—	28,041	—	170	1,131,958	—	1,131,958
Totals	1938	21,319	—	23	—	44,336	65,678	2	65,680	49,241	—	56	—	110,330	159,627	7	159,634
	1939	39,605	—	119	—	47,574	87,298	—	87,298	89,695	—	381	—	103,737	193,813	—	193,813
	1946	57,906	—	2,808	—	—	60,714	—	60,714	279,848	—	10,329	—	—	290,177	—	290,177
	1947	104,654	—	—	—	53	104,707	—	104,707	903,067	—	—	—	225	903,292	—	903,292
	1948	112,580	—	360	—	300	113,240	—	113,240	1,038,231	—	8,939	—	1,579	1,048,749	—	1,048,749
	1949	112,460	—	2,980	—	20	115,460	400	115,860	1,105,798	—	28,041	—	202	1,134,041	957	1,134,998
South Africa High Commission Territories Basutoland	1938	..	..	..	..	..	..	..	755	..	..	..	..	..	..	..	1,450
	1939	..	..	..	..	..	..	..	873	..	..	..	..	..	..	..	2,069
	1946	..	..	..	..	..	..	..	661	..	..	..	..	..	..	..	3,807
	1947	..	..	..	..	..	..	..	2,455	..	..	..	..	..	..	..	16,985
	1948	..	..	..	..	..	..	..	2,556	..	..	..	..	..	..	..	15,517
	1949	—	—	—	—	—	—	—	6,537	—	—	—	—	—	—	—	42,083
Bechuanaland	1938	—	22,979	—	—	—	22,979	—	22,979	—	14,794	—	—	—	14,794	—	14,794
	1939	—	5,547	—	—	14	5,561	22	5,583	—	12,834	—	—	33	12,867	15	12,882
	1946	—	2,588	—	—	—	2,588	—	2,588	—	12,826	—	—	—	12,826	—	12,826
	1947	—	7,304	—	—	—	7,304	—	7,304	—	41,683	—	—	—	41,683	—	41,683
	1948	—	5,000	—	—	—	5,000	54	5,054	—	55,913	—	—	—	55,913	1,713	57,626
	1949	—	8,714	—	—	—	8,714	18	8,372	—	70,516	—	—	—	70,516	130	70,646
Totals	1938	..	..	..	..	..	..	..	23,734	..	..	..	..	..	..	..	16,244
	1939	..	..	..	..	..	..	..	6,456	..	..	..	..	..	..	..	14,951
	1946	..	..	..	..	..	..	..	3,249	..	..	..	..	..	..	..	16,633
	1947	..	..	..	..	..	..	..	9,759	..	..	..	..	..	..	..	58,668
	1948	..	..	..	..	..	..	..	7,610	..	..	..	..	..	..	..	73,143
	1949	..	..	..	..	..	..	..	15,269	..	..	..	..	..	..	..	112,729
Mediterranean Cyprus	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1946	—	—	—	—	1,046	1,046	—	1,046	—	—	—	—	20,766	20,766	—	20,766
	1947	2	—	—	—	1,342	1,344	—	1,344	23	—	—	—	14,653	14,653	—	14,653
	1948	—	—	—	—	1,467	1,467	—	1,467	—	—	—	—	17,306	17,306	—	17,306
	1949	—	—	—	—	2,633	2,633	—	2,633	—	—	—	—	23,493	23,493	—	23,493
West Indies British Guiana (2) ..	1938	376	—	—	—	710	1,086	—	1,086	636	—	—	—	763	1,399	—	1,399
	1939	662	—	—	—	388	1,050	—	1,050	927	—	—	—	403	1,330	—	1,330
	1946	761	—	—	—	—	761	—	761	3,478	—	—	—	—	3,478	—	3,478
	1947	1,232	—	—	—	—	1,232	—	1,232	6,004	—	—	—	—	6,004	—	6,004
	1948	1,661	—	—	—	—	1,661	23	1,684	7,750	—	—	—	—	7,750	93	7,843
	1949	1,855	—	—	—	—	1,855	—	1,855	10,055	—	—	—	—	10,055	—	10,055
Jamaica	1938(2)	425	—	—	160	1,082	1,667	—	1,667	823	—	—	600	3,684	5,107	—	5,107
	1939	800	—	27	469	325	1,621	—	1,621	3,795	—	90	1,615	1,311	6,811	—	6,811
	1946	—	—	—	—	—	—	—	—	—	—	9	—	—	9	—	9
	1947	679	—	—	—	—	679	—	679	26,463	—	—	—	—	26,463	—	26,463
	1948	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13,614
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	1938	801	—	—	160	1,792	2,753	—	2,753	1,459	—	—	600	4,447	6,506	—	6,506
	1939	1,462	—	27	469	713	2,671	—	2,671	4,722	—	[illegible]	1,615	1,714	8,141	—	8,141
	1946	761	—	—	—	—	761	—	761	3,478	—	[illegible]	—	—	3,487	—	3,487
	[illegible]	[illegible]	—	—	[illegible]	[illegible]	[illegible]	—	[illegible]	32,467	—	[illegible]	—	—	32,467	—	32,467

Western Pacific Fiji (2)	1938	—	649	—	—	—	649	—	649	—	3,491	—	—	—	3,491	—	3,491
	1939	—	771	—	—	—	771	—	771	—	3,679	—	—	—	3,679	—	3,679
	1946	—	1,106	—	—	—	1,106	—	1,106	—	8,928	—	—	—	8,928	—	8,928
	1947	—	1,662	—	—	—	1,662	—	1,662	—	11,392	—	—	—	11,392	—	11,392
	1948	—	1,307	—	—	—	1,307	—	1,307	—	11,352	—	—	—	11,352	—	11,352
	1949	—	868	16	—	—	884	—	884	—	10,411	51	—	—	10,462	—	10,462
Grand Totals . . . . (Excluding Basutoland and Jamaica)	1938	36,922	30,467	107	—	144,923	212,419	20,977	233,396	86,770	32,038	217	—	371,847	490,872	52,110	542,982
	1939	67,187	13,927	10,912	—	122,985	215,011	25,495	240,506	155,860	32,695	32,331	—	289,110	509,996	61,969	571,965
	1946	138,637	13,718	4,519	—	7,290	164,164	16,798	180,962	671,642	69,467	17,826	—	71,093	830,028	81,005	911,033
	1947	225,762	19,666	20	—	6,315	251,763	18,906	270,669	1,752,407	124,941	56	—	49,552	1,926,956	130,998	2,057,944
	1948	221,130	23,529	360	—	5,753	250,772	21,433	272,205	1,854,641	186,444	8,939	—	51,665	2,101,689	142,325	2,244,014
	1949	264,593	31,427	2,996	—	8,260	307,276	438	307,714	2,243,849	241,190	28,092	—	73,473	2,586,604	1,193	2,587,797

N.B.—Other Exporters (See Introductory Note 5) : Somaliland Protectorate ; Zanzibar Protectorate ; Gambia ; Sierra Leone ; North Borneo ; Cayman Islands ; Trinidad and Tobago ; St. Lucia ; New Hebrides ; Tonga ; Falkland Islands ; Mauritius ; Seychelles. Malaya has a substantial entrepôt trade in this commodity ; its imports and exports were as follows :—

Year	*Imports*		*Exports*	
	Quantity (Cwts.)	*Value (£)*	*Quantity (Cwts.)*	*Value (£)*
1938	6,553	13,071	3,876	10,750
1939	8.868	13,084	2,184	6,246
1946	2,908	20,876	656	3,666
1947	6,326	33,751	3,250	31,444
1948	4,473	26,478	2,117	19,696
1949	2,212	15,799	2,292	27,731

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(1) Including " Calf Skins and Kips " which were shown separately for the first time in 1948.

(2) Converted from number to weight at 1 hide—15 lb.

(3) Kenya and Uganda's inter-colonial exports went mainly to Tanganyika, and Tanganyika's wholly to Kenya and Uganda. Kenya and Uganda's imports nearly all came from Tanganyika ; its re-exports were as follows :—

Year	*Sun Dried*			*Shade Dried*		
	U.K.	*Other Countries*	*Total*	*U.K.*	*Other Countries*	*Total*
			Quantity (cwt.)			
1938	805	1,435	2,240	131	1,771	1,902
1939	1,355	1,626	2,981	194	1,238	1,432
1946	4,092	812	4,904	3,885	171	4,056
1947	3,211	—	3,211	6,843	—	6,843
1948	1,934	—	1,934	7,128	—	7,128
			Value (£)			
1938	1,497	3,545	5,042	306	5,174	5,480
1939	2,881	2,929	5,810	500	3,332	3,832
1946	21,257	4,346	25,603	25,066	844	25,910
1947	23,810	—	23,810	67,768	—	67,768
1948	12,432	—	12,432	63,865	—	63,865

H. HIDES AND SKINS

TABLE 71: GOAT AND KID SKINS (RAW)

(SEE ALSO "SHEEP AND GOAT SKINS (RAW)" AND "OTHER HIDES AND SKINS (RAW)," TABLES 73 AND 75.)

			Quantity								Value (£)							
Colony, etc.	Year	Unit	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																		
Kenya and Uganda (a) Sun Dried ..	1938	Nos.	539,705	105,286	343,186	—	196,922	1,185,099	32,161	1,217,260	26,935	1,482	17,890	—	7,852	54,159	1,350	55,509
	1939	"	664,655	108,501	389,328	—	183,043	1,345,527	16,355	1,361,882	32,626	1,418	21,830	—	4,618	60,492	458	60,950
	1946	"	319,778	136,560	141,502	—	1,200	599,040	5,500	604,540	32,388	8,111	10,485	—	108	51,092	538	51,630
	1947	"	551,070	162,436	86,074	—	—	799,580	—	799,580	73,954	10,316	13,136	—	—	97,406	—	97,406
	1948(2)	"	55,440	49,168	459,088	—	52,416	616,112	4,480	620,592	7,895	2,879	71,286	—	8,101	90,161	292	90,453
	1949(2)	"	42,000	24,528	344,848	—	84,560	495,936	7,280	503,216	7,288	1,700	60,562	—	15,691	85,241	1,040	86,281
(b) Shade Dried	1938	Nos.	42,634	9,000	95,838	—	289,675	437,147	1,800	438,947	2,512	90	5,459	—	13,184	21,245	124	21,369
	1939	"	82,926	—	131,748	—	133,286	347,960	11,234	359,194	4,862	—	7,982	—	6,760	19,604	412	20,016
	1946	"	951,607	9,218	172,945	—	50,551	1,184,321	6,527	1,190,848	129,411	545	20,157	—	5,051	155,164	624	155,788
	1947	"	1,331,939	49,968	306,265	—	15,900	1,704,072	400	1,704,472	255,089	2,138	75,362	—	662	333,251	37	333,288
	1948(2)	"	117,488	61,936	1,632,624	224	579,152	2,391,424	5,488	2,396,912	31,031	3,221	408,420	88	148,063	590,823	262	591,085
	1949(2)	"	438,368	89,600	1,394,848	—	658,672	2,581,488	65,856	2,647,344	113,703	8,412	400,851	—	191,374	714,340	18,500	732,840
Totals	1938	Nos.	582,339	114,286	439,024	—	486,597	1,622,246	33,961	1,656,207	29,447	1,572	23,349	—	21,036	75,404	1,474	76,878
	1939	"	747,581	108,501	521,076	—	316,329	1,693,487	27,589	1,721,076	37,488	1,418	29,812	—	11,378	80,096	870	80,966
	1946	"	1,271,385	145,778	314,447	—	51,751	1,783,361	12,027	1,795,388	161,799	8,656	30,642	—	5,159	206,256	1,162	207,418
	1947	"	1,883,009	212,404	392,339	—	15,900	2,503,652	400	2,504,052	329,043	12,454	88,498	—	662	430,657	37	430,694
	1948(2)	"	172,928	111,104	2,091,712	224	631,568	3,007,536	9,968	3,017,504	38,926	6,100	479,706	88	156,164	680,984	554	681,538
	1949(2)	"	480,368	114,128	1,739,696	—	743,232	3,077,424	73,136	3,150,560	120,991	10,112	461,413	—	207,065	799,581	19,540	819,121
West Africa																		
Nigeria	1938	Cwts.	12,255	—	20,273	—	11,936	44,464	—	44,464	84,996	—	139,096	—	83,297	307,389	1	307,390
	1939	"	15,190	—	28,115	—	11,240	54,545	—	54,545	124,516	—	230,698	—	86,391	441,605	—	441,605
	1946	"	24,574	—	15,130	1,731	514	41,949	1	41,950	425,227	—	227,001	26,834	7,847	686,909	64	686,973
	1947	"	43,257	—	26,725	—	1,097	71,079	—	71,079	1,078,592	2	759,537	—	30,643	1,868,774	—	1,868,774
	1948	"	11,480	—	44,120	—	5,320	60,920	—	60,920	331,429	—	1,411,137	—	165,977	1,908,543	1	1,908,544
	1949	"	24,580	—	28,100	—	11,320	64,000	—	64,000	824,276	—	949,651	—	390,778	2,164,705	—	2,164,705
Mediterranean																		
Cyprus	1938	Cwts.	—	—	2	—	420	422	—	422	—	—	13	—	2,786	2,799	—	2,799
	1939	"	—	—	—	—	1,208	1,208	—	1,208	—	—	—	—	8,826	8,826	—	8,826
	1946	"	1	230	664	113	1,012	2,020	—	2,020	100	4,049	10,383	2,256	20,898	37,686	—	37,686
	1947	"	2	241	31	65	799	1,138	—	1,138	54	3,152	700	1,296	18,632	23,834	—	23,834
	1948	"	26	275	—	—	457	758	—	758	551	5,249	—	—	10,427	16,227	—	16,227
	1949	"	1,092	—	—	—	727	1,819	—	1,819	20,959	—	—	—	11,136	32,095	—	32,095
West Indies																		
Jamaica	1938	Nos.	—	—	172,922	—	—	172,922	—	172,922	—	—	12,754	—	—	12,754	—	12,754
	1939	"	200	—	224,552	—	—	224,752	325	225,077	1	—	15,034	—	—	15,035	19	15,054
	1946	"	—	—	170,984	12	—	170,996	—	170,996	—	—	19,276	2	—	19,278	—	19,278
	1947(2)	"	—	4,032	205,184	—	—	209,216	—	209,216	—	44	36,847	—	—	36,891	—	36,891
	1948(2)	"	—	—	182,092	—	—	182,092	—	182,092	—	—	39,746	—	—	39,746	—	39,746
	1949(2)	"	—	—	164,976	—	—	164,976	—	164,976	—	—	41,994	—	—	41,994	—	41,994
Grand Totals (1)	1938	Nos.	1,954,899	114,286	2,882,746	—	1,870,469	6,822,400	33,961	6,856,361	114,443	1,572	175,212	—	107,119	398,346	1,475	399,821
	1939	"	2,449,061	108,501	3,894,508	—	1,710,505	8,162,575	27,914	8,190,489	162,005	1,418	275,544	—	106,595	545,562	889	546,451
	1946	"	4,023,785	171,538	2,254,359	206,540	222,663	6,878,885	12,139	6,891,024	587,126	12,705	287,302	29,092	33,904	950,129	1,226	951,355
	1947	"	6,728,017	243,428	3,594,195	7,280	228,252	10,801,172	400	10,801,572	1,407,689	15,652	885,582	1,296	49,937	2,360,156	37	2,360,193
	1948	"	1,461,600	141,904	7,215,244	224	1,278,592	10,097,564	9,968	10,107,532	370,906	11,349	1,930,589	88	332,568	2,645,500	555	2,646,055
	1949	"	3,355,632	114,128	5,051,872	—	2,092,496	10,614,128	73,136	[illegible]	966,226	10,112	1,453,058	—	608,979	3,038,375	19,540	3,057,915

N.B.—Other Exporters (See Introductory Note 5): Gold Coast; Malaya; Trinidad; Zanzibar.

(1) Exports from Nigeria and Cyprus have been converted from weight to number at 1 lb. = 1 skin.

(2) Converted from weight to number at 1 lb = 1 skin.

(SEE ALSO "SHEEP AND GOAT SKINS (RAW)" AND "OTHER HIDES AND SKINS (RAW)," TABLES 73 AND 75).

Colony, etc.	Year	Unit	Quantity								Value (£)							
			U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa Kenya and Uganda (*a*) Sun Dried ..	1938	Nos.	6,852	13,880	1,412	—	8,279	30,423	300	30,723	286	244	19	—	215	764	4	768
	1939	,,	2,005	2,306	—	—	4,385	8,696	1,172	9,868	74	40	—	—	61	175	26	201
	1946	,,	112,562	21,382	78,051	—	62,771	274,766	—	274,766	12,841	1,216	8,187	—	5,239	27,483	—	27,483
	1947	,,	53,488	65,954	56,564	—	89,650	265,656	15,006	280,662	5,707	4,966	3,450	—	7,341	21,464	3,001	24,465
	1948	,,	7,168	26,656	49,056	—	107,296	190,176	299	190,475	878	1,510	3,924	—	9,388	15,700	30	15,730
	1949	,,	81,760	4,629	15,381	—	57,942	159,712	—	159,712	19,850	258	1,313	—	5,350	17,771	—	17,771
(*b*) Shade Dried	1938	Nos.	26,791	—	120	—	29,241	56,152	—	56,152	1,553	—	2	—	1,526	3,081	—	3,081
	1939	,,	30,709	1,800	1,599	—	16,327	50,435	214	50,649	1,306	29	28	—	509	1,872	5	1,877
	1946	,,	94,637	18,654	107,961	—	64,250	285,502	—	285,502	9,512	1,209	13,341	—	7,058	31,120	—	31,120
	1947	,,	185,632	79,587	88,619	—	157,539	511,377	600	511,977	20,406	3,962	9,348	—	19,250	52,966	52	53,018
	1948	,,	80,267	32,181	175,915	—	255,360	543,723	—	543,723	10,777	1,993	23,340	—	34,123	70,233	3	70,236
	1949	,,	306,656	40,022	322,411	—	75,264	744,353	—	744,353	45,044	2,765	43,081	—	10,117	101,007	—	101,007
Totals	1938	Nos.	33,643	13,880	1,532	—	37,520	86,575	300	86,875	1,839	244	21	—	1,741	3,845	4	3,849
	1939	,,	32,714	4,106	1,599	—	20,712	59,131	1,386	60,517	1,380	69	28	—	570	2,047	31	2,078
	1946	,,	207,199	40,036	186,012	—	127,021	560,268	—	560,268	22,353	2,425	21,528	—	12,297	58,603	—	58,603
	1947	,,	239,120	145,541	145,183	—	247,189	777,033	15,606	792,639	26,113	8,928	12,798	—	26,591	74,430	3,053	77,483
	1948	,,	87,435	58,837	224,971	—	362,656	733,899	299	734,198	11,655	3,503	27,264	—	43,511	85,933	33	85,966
	1949	,,	388,416	44,651	337,792	—	133,206	904,065	—	904,065	55,894	3,023	44,394	—	15,467	118,778	—	118,778
West Africa Nigeria	1938	Cwts.	3,222	—	4,208	—	610	8,040	—	8,040	13,805	—	18,028	—	3,673	35,506	—	35,506
	1939	,,	4,175	—	10,214	—	823	15,212	—	15,212	15,694	—	38,153	—	3,026	56,873	—	56,873
	1946	,,	4,030	—	8,387	—	—	12,417	—	12,417	39,031	—	95,878	—	—	134,909	—	134,909
	1947	,,	9,456	—	11,769	—	20	21,245	—	21,245	151,862	—	178,299	—	249	330,410	—	330,410
	1948	,,	8,580	—	5,960	—	700	15,240	—	15,240	141,640	—	94,129	—	11,873	247,642	—	247,642
	1949	,,	9,820	—	6,740	—	2,880	19,440	—	19,440	188,303	—	116,707	—	55,763	360,773	—	360,773
Mediterranean Cyprus	1938	Cwts.	—	—	4	—	1,244	1,248	—	1,248	—	—	22	—	6,910	6,932	—	6,932
	1939	,,	74	—	—	—	1,510	1,584	—	1,584	327	—	—	—	7,874	8,201	—	8,201
	1946	,,	173	537	1,983	—	2,246	4,939	2	4,941	2,886	7,663	25,968	—	37,386	73,903	75	73,978
	1947	,,	3	244	—	—	1,170	1,417	—	1,417	71	2,795	—	—	23,886	26,752	—	26,752
	1948	,,	97	388	—	—	1,405	1,890	—	1,890	1,334	6,062	—	—	24,604	32,000	—	32,000
	1949	,,	240	—	195	—	2,460	2,895	—	2,895	3,884	—	3,000	—	38,653	45,537	—	45,537
Atlantic and Indian Oceans Falkland Islands																		
Sheep Skins ..	1938	Bales	748	—	—	—	—	748	—	748	18,606	—	—	—	—	18,606	—	18,606
Hides		Cwts.	436	—	—	—	—	436	—	436	830	—	—	—	—	830	—	830
Sheep Skins ..	1939	Bales	321	—	—	—	—	321	—	321	7,284	—	—	—	—	7,284	—	7,284
Hides		Cwts.	649	—	—	—	—	649	—	649	992	—	—	—	—	992	—	992
Hides and Skins (1) ..	1946	,,	5,856	—	—	—	—	5,856	—	5,856	14,175	—	—	—	—	14,175	—	14,175
	1947	,,	5,594	—	—	—	—	5,594	—	5,594	12,821	—	—	—	—	12,821	—	12,821
	1948	,,	7,566	—	—	—	—	7,566	—	7,566	23,930	—	—	—	—	23,930	—	23,930
	1949	,,	3,431	—	—	—	—	3,431	—	3,431	25,878	—	—	—	—	25,878	—	25,878
Grand Totals (2) (Excluding Falkland Islands)	1938	Nos.	274,219	13,880	316,028	—	175,952	780,079	300	780,379	15,644	244	18,071	—	12,324	46,283	4	46,287
	1939	,,	349,973	4,106	764,244	—	194,909	1,313,232	1,386	1,314,618	17,401	69	38,181	—	11,470	67,121	31	67,152
	1946	,,	521,023	80,132	960,305	—	294,723	1,856,183	149	1,856,332	64,270	10,088	143,374	—	49,683	267,415	75	267,490
	1947	,,	945,392	163,760	1,023,935	—	336,042	2,469,129	15,606	2,484,735	178,046	11,723	191,097	—	50,726	431,592	3,053	434,645
	1948	,,	735,316	87,808	669,984	—	519,829	2,012,937	299	2,013,236	154,629	9,565	121,393	—	79,988	365,575	33	365,608
	1949	,,	1,139,563	44,651	855,605	—	531,926	2,571,745	—	2,571,745	248,081	3,023	164,101	—	109,883	525,088	—	525,088

N.B.—Small exports from Gold Coast have been excluded (See Introductory Note 5).

(1) For 1946 and after " Hides and Skins " were shown as one item.

(2) Exports from Nigeria and Cyprus have been converted from weight to number at 1¼ lb. = 1 skin.

TABLE 73 : SHEEP AND GOAT SKINS (RAW)

Colony, etc.	Year	Unit	Quantity								Value (£)							
			U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																		
Somaliland Protectorate	1938	Nos.	..	..	..	..	..	..	..	1,699,883	..	..	..	..	..	..	..	92,872
	1939	„	..	..	..	..	..	..	..	1,952,512	..	..	..	..	..	..	..	82,050
	1946	„	..	..	..	..	..	..	..	1,999,150	..	..	..	..	..	..	..	218,181
	1947	„	..	..	..	..	..	..	..	2,101,971	..	..	..	..	..	..	..	258,965
	1948	„	..	..	..	..	..	..	..	2,405,710	..	..	..	..	..	..	..	282,421
	1949	„	..	..	..	..	..	..	..	1,278,363(2)	..	..	..	..	..	..	..	357,083(2)
Tanganyika ..	1938	Nos.	626,547	66,694	6,000	—	175,766	875,007	274,807	1,149,814	27,441	1,115	75	—	5,089	33,720	8,648	42,368
	1939	„	554,683	70,811	207,446	—	98,900	931,840	215,599	1,147,439	22,892	1,294	9,782	—	3,064	37,032	7,054	44,086
	1946	„	907,760	110,200	325,260	—	50,400	1,393,620	13,380	1,407,000	63,272	2,753	20,663	—	2,892	89,580	941	90,521
	1947	„	1,229,360	243,220	131,600	—	64,200	1,668,380	121,220	1,789,600	109,115	9,614	13,651	—	4,162	136,542	12,967	149,509
	1948	„	197,307	161,206	666,848	24,453	284,405	1,334,219	214,443	1,548,662(1)	14,650	4,591	67,972	2,775	21,114	111,102	34,175	145,277(2)
	1949	„	123,200	99,941	845,227	—	377,104	1,445,472	—	1,445,472(2)	19,431	4,086	122,963	—	35,826	182,306	—	182,306(2)
Totals	1938	Nos.	..	..	..	..	..	..	..	2,849,697	..	..	..	..	..	..	..	135,240
	1939	„	..	..	..	..	..	..	..	3,099,951	..	..	..	..	..	..	..	126,136
	1946	„	..	..	..	..	..	..	..	3,406,150	..	..	..	..	..	..	..	308,702
	1947	„	..	..	..	..	..	..	..	3,891,571	..	..	..	..	..	..	..	408,474
	1948	„	..	..	..	..	..	..	..	3,954,372	..	..	..	..	..	..	..	427,698
	1949	„	..	..	..	..	..	..	..	2,723,835	..	..	..	..	..	..	..	539,389
South Africa High Commission Territories																		
Basutoland ..	1938	Cwts.	..	..	..	..	..	..	..	359	..	..	..	..	..	..	..	1,001
	1939	„	..	..	..	..	..	..	..	466	..	..	..	..	..	..	..	669
	1946	„	..	..	..	..	..	..	..	382	..	..	..	..	..	..	..	1,080
	1947	„	..	..	..	..	..	..	..	1,056	..	..	..	..	..	..	..	4,775
	1048	„	..	..	..	..	..	..	..	1,722	..	..	..	..	..	..	..	9,573
	1949	„	..	..	..	..	..	..	..	3,005	..	..	..	..	..	..	..	14,016
Bechuanaland ..	1938	Nos.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,220
	1939	„	..	..	..	..	..	..	..	19,953	..	..	..	..	..	..	..	1,037
	1946	„	—	21,838	—	—	—	21,838	—	21,838	—	3,126	—	—	—	3,126	—	3,126
	1947(1)	„	—	49,600	—	—	—	49,600	—	49,600	—	6,266	—	—	—	6,266	—	6,266
	1948(1)	„	—	25,600	—	—	—	25,600	—	25,600	—	3,563	—	—	—	3,563	—	3,563
	1949(1)	„	—	52,800	—	—	—	52,800	—	52,800(2)	—	7,425	—	—	—	7,425	—	7,425

N.B.—Other Exporters (See Introductory Note 5) : Zanzibar Protectorate ; Northern Rhodesia ; Gambia ; Gold Coast ; North Borneo ; British Guiana ; St. Lucia.

(1) Converted from weight to number at 1¼ lbs.=1 Skin.

(2) Conversions from weight to numbers were as follows :—

Colony, etc.	*Year*	*Sheep Skins*		*Goat Skins*	
		No. (a)	*Value (£)*	*No. (b)*	*Value (£)*
Somaliland	1949	673,272	205,718	605,091	151,365
Tanganyika	1948	374,454	25,047	1,174,208	120,230
	1949	327,712	29,052	1,117,760	152,804

(a) Converted from weight to No. at 1¼ lbs. 1 skin.
(b) .. .. 1 lbs. 1 skin.

Colony, etc.	Year	Quantity (Cwts.)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa																	
Nigeria ("Reptile Skins")	1938	95	—	—	1	106	202	—	202	3,251	—	2	8	353	3,614	—	3,614
	1939	55	—	—	—	116	171	—	171	1,212	—	—	—	1,375	2,587	—	2,587
	1946	480	195	29	—	233	937	22	959	96,087	29,945	2,918	50	27,067	156,067	2,911	158,978
	1947	615	156	2	1	345	1,119	11	1,130	135,347	28,690	336	200	25,657	190,230	1,101	191,331
	1948	320	20	20	—	240	600	140	740	80,124	8,494	170	—	14,064	102,852	12,501	115,353
	1949	400	60	—	—	200	660	20	680	62,825	5,277	269	—	12,429	80,800	1,747	82,547
Eastern																	
Federation of Malaya and Singapore (1) ("Reptile Skins")	1938	154	—	—	—	932	1,086	—	1,086	3,595	—	—	—	14,888	18,483	—	18,483
	1939	334	23	8	—	515	880	—	880	4,153	532	257	—	7,165	12,107	—	12,107
	1946	190	2	5	—	25	222	209	431	37,553	462	800	—	1,922	40,737	2,994	43,731
	1947	675	39	173	2	25	914	46	960	197,947	7,318	26,500	1,458	2,879	236,102	383	236,485
	1948	1,076	54	85	—	417	1,632	22	1,654	108,521	7,253	13,887	—	54,477	184,138	403	184,541
	1949	1,024	52	161	—	476	1,713	64	1,777	76,206	7,753	13,080	—	32,837	129,876	3,739	133,615
Sarawak (2) .. .. .. ("Crocodile Skins") ..	1948	..	..	..	..	..	..	..	249	..	..	..	..	..	..	..	7,390
	1949	..	..	..	..	..	..	..	331	..	..	..	..	..	..	..	11,817
West Indies																	
British Honduras ("Alligator Skins")	1938	—	—	93	—	—	93	—	93	—	—	1,138	—	—	1,138	—	1,138
	1939	—	—	142	—	—	142	19	161	—	—	2,026	—	—	2,026	162	2,188
	1946	—	—	159	—	9	168	—	168	—	—	7,526	—	474	8,000	—	8,000
	1947	—	—	61	—	12	73	—	73	—	—	3,494	—	283	3,777	—	3,777
	1948	—	—	25	—	14	39	—	39	—	—	976	—	591	1,567	—	1,567
	1949	—	—	63	—	69	132	—	132	—	—	3,117	—	514	3,631	—	3,631
Totals	1938	249	—	93	1	1,038	1,381	—	1,381	6,846	—	1,140	8	15,241	23,235	—	23,235
	1939	389	23	150	—	631	1,193	19	1,212	5,365	532	2,283	—	8,540	16,720	162	16,882
	1946	670	197	193	—	267	1,327	231	1,558	133,640	30,407	11,244	50	29,463	204,804	5,905	210,709
	1947	1,290	195	236	3	382	2,106	57	2,163	333,294	36,008	30,330	1,658	28,819	430,109	1,484	431,593
	1948	1,396	74	130	—	671	2,271	162	2,433	188,645	15,747	15,033	—	69,132	288,557	12,904	301,461
	1949	1,424	112	224	—	745	2,505	84	2,589	139,031	13,030	16,466	—	45,780	214,307	5,486	219,793

N.B.—Other Exporters (See Introductory Note 5): Gold Coast and Sierra Leone ("Reptile Skins"); Jamaica ("Turtle Skins"); and Cayman Islands ("Alligator and Turtle Skins."); Kenya, Uganda and Tanganyika ("Crocodile Skins"); these were separately enumerated in 1948 and 1949 and the export figures are shown in footnotes 2 and 3 on Table 75).

(1) Imports of Malaya were as follows :—

Year	Quantity (Cwt.)	Value (£)
1938	556	6,853
1939	494	5,410
1946	409	12,872
1947	1,110	60,826
1948	1,242	101,841
1949	1,197	51,546

(2) There were no exports in previous years. Sarawak has from time to time exported small quantities of Snake and Lizard Skins.

H. HIDES AND SKINS

TABLE 75: HIDES AND SKINS (RAW) (1)

(NOT SUFFICIENTLY DEFINED FOR INCLUSION IN TABLES 70 TO 74.)

			Quantity								Value (£)							
Colony, etc.	Year	Unit	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																		
Kenya and Uganda (2)	1938	Nos.	91	6	1,079	—	3,971	5,147	107	5,254	148	10	484	—	863	1,505	66	1,571
	1939	,,	296	168	3,592	—	1,934	5,990	272	6,262	374	52	1,508	—	536	2,470	61	2,531
	1946	,,	15,722	409	45,588	—	5,082	66,801	1,320	68,121	26,994	632	68,670	—	9,731	106,027	970	106,997
	1947	,,	22,538	893	9,049	—	4,330	36,810	5,250	42,060	17,199	573	16,464	—	679	34,915	836	35,751
	1948	Cwts.	4,985	70	965	—	943	6,963	434	7,397	38,121	596	16,543	20	5,753	61,033	1,280	62,313
	1949	,,	1,347	37	431	—	673	2,488	4	2,492	17,380	104	12,655	—	6,951	37,090	15	37,105
Tanganyika (3) ..	1938	Nos.	2	2	314	—	4,556	4,874	2,383	7,257	2	3	829	—	4,868	5,702	3,747	9,449
	1939	,,	55	20	854	—	2,616	3,545	1,427	4,972	58	17	2,605	—	4,879	7,559	1,186	8,745
	1946	,,	20	—	318	—	3	341	166	507	69	—	4,453	—	63	4,585	2,156	6,741
	1947	,,	5	..	184	—	1	190	133	323	105	11	2,267	—	304	2,687	1,168	3,855
	1948	Cwts.	—	—	4	—	—	4	79	83	—	19	1,176	—	—	1,195	2,605	3,800
	1949	,,	4	92	120	—	3	219	1	220	51	109	2,696	—	78	2,934	26	2,960
Northern Rhodesia (4)	1938	—	..	..	..	..	..	..	..	..	548	1,639	16	3	22	2,228	1	2,229
	1939	—	..	..	..	..	..	..	..	..	320	1,788	31	9	19	2,167	7	2,174
	1946	—	..	..	..	..	..	..	..	..	390	2,879	307	—	1	3,577	2,046	5,623
	1947	—	..	..	..	..	..	..	..	..	206	5,521	457	2	22	6,208	178	6,386
	1948	—	..	..	..	..	..	..	..	..	479	4,701	40	10	56	5,286	112	5,398
	1949	—	..	..	..	..	..	..	..	..	323	3,159	109	2	29	3,622	1,354	4,976
Totals	1938										698	1,652	1,329	3	5,753	9,435	3,814	13,249
	1939										752	1,857	4,144	9	5,434	12,196	1,254	13,450
	1946										27,453	3,511	73,430	—	9,795	114,189	5,172	119,361
	1947										17,510	6,105	19,188	2	1,005	43,810	2,182	45,992
	1948										38,600	5,316	17,759	30	5,809	67,514	3,997	71,511
	1949										17,754	3,372	15,460	2	7,058	43,646	1,395	45,041
West Africa (5)																		
Gold Coast ..	1938	Cwts.	8	—	6	—	5	19	—	19	137	—	166	—	127	430	—	430
	1939	,,	51	—	—	—	1	52	—	52	978	—	20	—	42	1,040	—	1,040
	1946	,,	54	—	241	—	4	299	—	299	1,634	15	10,288	—	298	12,235	—	12,235
	1947	,,	18	—	88	—	6	112	—	112	677	—	2,365	—	93	3,135	—	3,135
	1948	,,	60	—	—	—	540	600	—	600	213	—	—	—	2,810	3,023	—	3,023
	1949	,,	20	—	300	—	—	320	—	320	540	—	2,647	—	—	3,187	—	3,187
Nigeria	1938	Cwts.	469	2	56	—	7	534	—	534	1,036	100	399	—	150	1,685	1	1,686
	1939	,,	13	—	23	—	14	50	—	50	153	—	567	—	178	898	—	898
	1946	,,	51	—	88	—	33	172	5	177	4,654	82	24,369	—	1,580	30,685	621	31,306
	1947	,,	25	—	21	1	11	58	—	58	2,763	—	5,166	300	90	8,319	4	8,323
	1948	,,	140	..	140	—	..	280	..	280	6,319	654	13,438	—	1,039	21,450	499	21,949
	1949	,,	40	—	40	—	20	100	—	100	4,414	771	4,903	—	2,268	12,356	—	12,356
Totals	1938	Cwts.	477	2	62	—	12	553	—	553	1,173	100	565	—	277	2,115	1	2,116
	1939	,,	64	—	23	—	15	102	—	102	1,131	—	587	—	220	1,938	—	1,938
	1946	,,	105	—	329	—	37	471	5	476	6,288	97	34,657	—	1,878	42,920	621	43,541
	1947	,,	43	—	109	1	17	170	—	170	3,440	—	7,531	300	183	11,454	4	11,458
	1948	,,	200	—	140	—	540	880	..	880	6,532	654	13,438	—	3,849	24,473	499	24,972
	1949	,,	60	—	340	—	20	420	—	420	4,954	771	7,550	—	2,268	15,543	—	15,543

TABLE 75: HIDES AND SKINS (RAW) (1)—(*continued*).

(NOT SUFFICIENTLY DEFINED FOR INCLUSION IN TABLES 70 TO 74.)

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
South Africa **High Commission Territories** ..																		
Bechuanaland (6) ..	1938	Nos.	—	3,900	—	—	..	..	..	..	—	3,247	—	—	84	3,331	9	3,340
	1939	,,	—	..	—	—	—	..	—	..	—	3,539	—	—	—	3,539	—	3,539
	1946	,,	—	19,975	—	—	—	19,975	..	19,975	—	6,647	—	—	—	6,647	158	6,805
	1947	,,	—	21,662	—	—	—	21,662	—	21,662	—	43,324	—	—	—	43,324	—	43,324
	1948	,,	—	7,500	—	—	—	7,500	28	7,528	—	15,000	—	—	—	15,000	56	15,056
	1949	,,	—	951	—	—	—	951	—	951	—	7,225	—	—	—	7,225	—	7,225
Swaziland (7) ..	1938	Cwts.	..	..	..	..	..	..	..	2,360	..	..	..	..	..	..	..	5,132
	1939	,,	..	..	..	..	..	..	..	3,333	..	..	..	..	..	..	..	12,598
	1946	,,	..	..	..	..	..	..	..	6,944	..	..	..	..	..	..	..	38,889
	1947	,,	..	..	..	..	..	..	..	8,062	..	..	..	..	..	..	..	38,860
	1948	,,	..	..	..	..	..	..	..	7,478	..	..	..	..	..	..	..	58,355
	1949	Nos.	..	..	..	..	..	..	..	47,392	..	..	..	..	..	..	..	..
Eastern																		
Federation of Malaya and Singapore (8)	1938	Cwts.	—	—	—	—	21	21	33	54	23	4	—	—	71	98	53	151
	1939	,,	—	—	—	—	66	66	144	210	—	1	—	—	303	304	528	832
	1946	,,	—	—	—	—	869	869	938	1,807	—	—	—	—	7,490	7,490	6,128	13,618
	1947	,,	40	4	—	—	—	44	320	364	505	23	—	—	3	531	2,038	2,569
	1948	,,	—	—	—	—	—	—	320	320	42	6	—	—	16	64	2,401	2,465
	1949	,,	11	1	—	—	—	12	400	412	284	11	—	—	4	299	2,445	2,744
Sarawak (9) ..	1938	Cwts.	..	..	..	..	..	..	..	325	..	..	..	..	..	..	..	725
	1939	,,	..	..	..	..	..	..	..	96	..	..	..	..	..	..	..	117
	1946	,,	..	..	..	..	..	..	..	83	..	..	..	..	..	..	..	285
	1947	,,	..	..	..	..	..	..	..	254	..	..	..	..	..	..	..	6,223
	1948	,,	..	..	..	..	..	..	..	6	..	..	..	..	..	..	..	127
	1949	,,	..	..	..	..	..	..	..	40	..	..	..	..	..	..	..	1,881
Mediterranean																		
Malta (10) ..	1938	Cwts.	23	—	—	—	8,276	8,299	67	8,366	17	—	—	—	17,814	17,831	133	17,964
	1939	,,	290	—	—	—	4,878	5,168	—	5,168	144	—	—	—	10,445	10,589	—	10,589
	1946	,,	380	—	—	—	2,080	2,460	—	2,460	4,327	—	—	—	17,988	22,315	—	22,315
	1947	,,	134	—	—	—	666	800	—	800	3,901	—	—	—	9,968	13,869	—	13,869
	1948	,,	186	—	—	—	3,698	3,884	—	3,884	3,515	—	—	—	25,469	28,984	—	28,984
	1949	,,	53	—	—	—	192	245	—	245	1,870	—	—	—	12,083	13,953	—	13,953
Grand Totals (Excluding Swaziland and Sarawak)	1938										1,911	5,003	1,894	3	23,999	32,810	4,010	36,820
	1939										2,027	5,397	4,731	9	16,402	28,566	1,782	30,348
	1946										38,068	10,255	108,087	—	37,151	193,561	12,079	205,640
	1947										25,356	49,452	26,719	302	11,159	112,988	4,224	117,212
	1948										48,689	20,976	31,197	30	35,143	136,035	6,953	142,988
	1949										24,862	11,379	23,010	2	21,413	80,666	3,840	84,506

N.B.—Other Exporters (See Introductory Note 5): Zanzibar Protectorate; Nyasaland Protectorate; Sierra Leone; Brunei; Cyprus; Barbados; British Guiana; British Honduras; Jamaica; Leeward Islands; Grenada; St. Lucia; St. Vincent; Bahamas.

H. HIDES AND SKINS

(1) In addition to the Raw Hides and Skins dealt with in Tables 70 to 75 a number of other animal hides and skins are exported,

Malaya : Buffalo Hides (Undressed)

Year	Imports		Exports	
	Quantity (Cwt.)	*Value (£)*	*Quantity (Cwt.)*	*Value (£)*
1938	2,400	2,996	4,040	8,398
1939	2,340	2,669	4,462	8,429
1946	793	4,460	5,426	25,389
1947	3,027	10,714	5,580	38,712
1948	1,967	9,630	3,280	28,162
1949	1,867	7,649	4,093	32,939

There have been also small exports mentioned of Ant-Eater Skins (Sarawak) ; Buffalo Hides (Sarawak) ; Deer Skins (Malaya) ; Otter Skins (N. Rhodesia) ; Rhinoceros Skins (Sarawak) ; and Shark Skins (B. Honduras ; Jamaica and Cayman Islands).

(2) Other Animal Skins (i.e. other than Hides and Sheep and Lamb, Goat and Kid, Calf and Kips). In 1948 Crocodile, Hyrax and Leopard Skins were shown separately for the first time. Exports in 1948 and 1949 were as follows :—

Type	1948		1949	
	Quantity (Cwt.)	*Value (£)*	*Quantity (Cwt.)*	*Value (£)*
Crocodile	981	13,964	1,473	18,125
Hyrax	2	722	—	—
Leopard	12	4,393	32	5,825

(3) Other Animal Skins (i.e. other than Hides and Sheep and Goat Skins). In 1946 Crocodile and Leopard Skins were shown separately for the first time. Exports for the years 1946–9 were as follows :—

Year	Unit of Quantity	Crocodile		Leopard	
		Quantity	*Value (£)*	*Quantity*	*Value (£)*
1946	No.	74	75	433	5,506
1947	No.	22	62	301	3,322
1948	Cwt.	68	141	14	3,475
1949	”	4	8	4	1,055

(4) Other than Ox and Cow Hides ; Sheep, Goat and Otter Skins.

(5) Other than Cattle Hides ; Sheep, Goat and Reptile Skins.

(6) Skins and Karosses ; other than Hides, Sheep and Goat Skins.

(7) For 1938, 1939, 1946 and 1949—“ Hides and Skins ” ; for 1947 and 1948 “ Hides ”.

(8) Other than Buffalo and Cow Hides ; Deer, Goat and Reptile Skins. Imports of Other Skins (Undressed) were as follows :—

Year	*Quantity (Cwt.)*	*Value (£)*
1938	29	107
1939	65	164
1946	748	4,333
1947	803	4,506
1948	673	3,001
1949	632	2,569

(9) Other than Buffalo and Cow Hides ; Ant-Eater, Crocodile, Snake, Lizard and Rhinoceros Skins.

(10) “ Hides and Skins ”.

TABLE 76: LEATHER (TANNED GOAT SKINS)

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Nigeria	1938	680	—	1	—	272	953	1	954	10,542	—	21	—	4,338	14,901	5	14,906
	1939	692	—	128	—	85	905	—	905	11,633	—	1,480	—	1,420	14,533	—	14,533
	1946	1,971	—	—	—	—	1,971	38	2,009	46,418	—	—	—	—	46,418	647	47,065
	1947	2,556	—	—	—	—	2,556	—	2,556	83,400	—	—	—	3	83,403	—	83,403
	1948	1,980	—	20	—	20	2,020	—	2,020	78,453	25	783	—	577	79,838	47	79,885
	1949	2,600	—	—	—	—	2,600	—	2,600	99,984	—	53	—	40	100,077	—	100,077

N.B.—Small exports from Gold Coast have been excluded (See Introductory Note 5).

H. HIDES AND SKINS

TABLE 77 : LEATHER (TANNED SHEEP SKINS)

		Quantity (Cwts.)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Nigeria	1938	264	—	—	—	—	264	—	264	4,437	—	—	—	—	4,437	—	4,437
	1939	504	—	—	—	—	504	—	504	8,428	—	—	—	—	8,428	—	8,428
	1946	196	—	—	—	—	196	14	210	6,738	—	—	—	—	6,738	98	6,836
	1947	720	—	—	—	—	720	—	720	29,393	—	—	—	—	29,393	—	29,393
	1948	700	—	—	—	—	700	—	700	25,927	21	37	—	—	25,985	—	25,985
	1949	500	—	—	—	—	500	—	500	19,024	—	6	—	6	19,036	—	19,036

N.B.—Small exports from Gold Coast have been excluded (See Introductory Note 5).

Value (£)

Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda (1)																	
(*a*) Sole Leathers and Leather for Transmission Belts	1948	—	—	—	—	—	—	673(3)	673	—	—	—	—	—	—	7,029	7,029
	1949	—	—	—	—	42	42	129(3)	171	—	—	—	—	468	468	1,647	2,115
(*b*) Other Leathers from Hides of Large Animals Tanned or Curried	1948	—	197	—	—	—	197	120(3)	317	—	1,181	—	—	—	1,181	4,456	5,637
	1949	13	—	—	—	34	47	—	47	468	—	—	—	416	884	—	884
(*c*) Leather from Skins of Calves, Sheep and Goats, Tanned or Curried	1948	90	16	—	—	—	106	210(3)	316	1,723	315	—	—	—	2,038	4,087	6,125
	1949	226	—	—	—	—	226	—	226	4,550	—	—	—	—	4,550	—	4,550
(*d*) Other Dressed Leather	1938	—	—	—	—	21	21	1(3)	22	—	—	—	—	101	101	5	106
	1939	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
	1946	3	—	—	—	206	209	95(3)	304	184	1	—	—	10,808	10,993	3,360	14,353
	1947	10	39	—	—	201	250	110(3)	360	600	2,064	—	—	4,920	7,584	5,537	13,121
	1948	1	—	8	—	—	9	34(3)	43	69	—	404	—	—	473	762	1,235
	1949	18	7	—	—	—	25	22	47	1,450	276	—	—	56	1,782	459	2,241
Totals .. .. .. Kenya and Uganda ..	1938	—	—	—	—	21	21	1(3)	22	—	—	—	—	101	101	5	106
	1939	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
	1946	3	—	—	—	206	209	95(3)	304	184	1	—	—	10,808	10,993	3,360	14,353
	1947	10	39	—	—	201	250	110(3)	360	600	2,064	—	—	4,920	7,584	5,537	13,121
	1948	91	213	8	—	—	312	1,037(3)	1,349	1,792	1,496	404	—	—	3,692	16,334	20,026
	1949	257	7	—	—	76	340	151	491	6,468	276	—	—	940	7,684	2,106	9,790
Tanganyika (1)																	
(*a*) Sole Leathers and Leather for Transmission Belts	1948	—	—	—	—	—	—	1,470(3)	1,470	—	—	—	—	—	—	16,579	16,579
	1949	—	—	—	—	4	4	27	31	—	—	—	—	40	40	310	350
(*b*) Other Leather from Hides of Large Animals, Tanned or Curried	1948	—	—	—	—	—	—	4(3)	4	—	—	—	—	—	—	60	60
	1949	5	—	—	—	—	5	9	14	59	—	—	—	—	59	100	159
(*c*) Leather from Skins of Calves, Sheep and Goats, Tanned or Curried	1948	—	—	—	—	—	—	211(3)	211	—	—	—	—	—	—	7,196	7,196
	1949	—	—	—	—	—	—	2	2	—	—	—	—	—	—	100	100
(*d*) Other Dressed Leather	1938	—	—	—	—	—	—	149(3)	149	—	—	—	—	—	—	971	971
	1939	—	—	—	—	—	—	157(3)	157	—	—	—	—	—	—	914	914
	1946	—	—	—	—	—	—	1,158(3)	1,158	—	—	—	—	—	—	14,158	14,158
	1947	—	—	—	—	—	—	1,560(3)	1,560	—	—	—	—	—	—	24,824	24,824
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	—	—	—	—	—	—	—	—	4	—	—	—	—	4	—	4
Totals .. .. .. Tanganyika	1938	—	—	—	—	—	—	149(3)	149	—	—	—	—	—	—	971	971
	1939	—	—	—	—	—	—	157(3)	157	—	—	—	—	—	—	914	914
	1946	—	—	—	—	—	—	1,158(3)	1,158	—	—	—	—	—	—	14,158	14,158
	1947	—	—	—	—	—	—	1,560(3)	1,560	—	—	—	—	—	—	24,824	24,824
	1948	—	—	—	—	—	—	1,685(3)	1,685	—	—	—	—	—	—	23,835	23,835
	1949	5	—	—	—	4	9	38(3)	47	63	—	—	—	40	103	510	613
Totals .. .. .. East and Central Africa	1938	—	—	—	—	21	21	150(3)	171	—	—	—	—	101	101	976	1,077
	1939	—	—	—	—	—	—	157(3)	157	—	—	—	—	2	2	914	916
	1946	3	—	—	—	206	209	1,253(3)	1,462	184	1	—	—	10,808	10,993	17,518	28,511
	1947	10	39	—	—	201	250	1,670(3)	1,920	600	2,064	—	—	4,920	7,584	30,361	37,945
	1948	91	213	8	—	—	312	2,722(3)	3,034	1,792	1,496	404	—	—	3,692	40,169	43,861
	1949	262	7	—	—	80	349	189(3)	538	6,531	276	—	—	980	7,787	2,616	10,403

TABLE 78: LEATHER (OTHER AND UNSPECIFIED)—(*continued*)

Colony, etc.	Year	Quantity (Cwts)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Mediterranean																	
Cyprus(2)																	
(*a*) Sole Leather	1946	—	—	—	—	26	26	—	26	—	—	—	—	565	565	—	565
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	—	—	—	202	202	—	202	—	—	—	—	3,315	3,315	—	3,315
	1949	—	—	—	—	579	579	—	579	—	—	—	—	9,763	9,763	—	9,763
(*b*) Other Dressed Leather	1946	—	—	—	—	12	12	—	12	25	—	1	—	611	637	—	637
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	—	—	—	—	495	495	—	495	—	—	—	—	8,575	8,575	—	8,575
Totals	1946	—	—	—	—	38	38	—	38	25	—	1	—	1,176	1,202	—	1,202
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	—	—	—	202	202	—	202	—	—	—	—	3,315	3,315	—	3,315
	1949	—	—	—	—	1,074	1,074	—	1,074	—	—	—	—	18,338	18,338	—	18,338
West Indies																	
Jamaica																	
Leather	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79	79
	1939	—	—	—	—	—	—	—	—	—	—	—	41	—	41	—	41
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	300	300
	1947	—	—	—	—	—	—	178	178	—	—	—	—	—	—	3,228	3,228
	1948	5	—	12	36	9	62	834	896	99	—	253	4,267	635	5,254	17,802	23,056
	1949	1	—	—	1	—	2	886	888	37	—	—	18	—	55	22,918	22,973
Grand Totals	1938	—	—	—	—	21	21	150	171	—	—	—	—	101	101	1,055	1,156
	1939	—	—	—	—	—	—	157	157	—	—	—	41	2	43	914	957
	1946	3	—	—	—	244	247	1,253	1,500	209	1	1	—	11,984	12,195	17,818	30,013
	1947	10	39	—	—	201	250	1,848	2,098	600	2,064	—	—	4,920	7,584	33,589	41,173
	1948	96	213	20	36	211	576	3,556	4,132	1,891	1,496	657	4,267	3,950	12,261	57,971	70,232
	1949	263	7	—	1	1,154	1,425	1,075	2,500	6,568	276	—	18	19,318	26,180	25,534	51,714

N.B.—Other Exporters (See Introductory Note 5) : Nigeria. Malaya has a substantial entrepôt trade in this commodity ; its imports and exports were as follows :—

Year	*Hides Tanned (Undressed)*		*Dressed Leather*		*Year*	*Hides Tanned (Undressed)*		*Dressed Leather*	
	Quantity (Cwt.)	*Value (£)*	*Quantity (Cwt.)*	*Value (£)*		*Quantity (Cwt.)*	*Value (£)*	*Quantity (Cwt.)*	*Value (£)*
1938	3,448	19,632	1,684	38,932	1938	5,858	19,475	369	7,841
1939	3,985	20,898	2,159	38,902	1939	7,643	21,027	381	7,655
1946	3,157	40,411	2,722	139,878	1946	472	4,160	29	1,957
1947	4,601	56,889	3,694	151,171	1947	626	4,507	109	2,407
1948	14,152	147,831	4,875	219,807	1948	2,626	46,104	502	19,598
1949	17,831	182,119	5,018	219,918	1949	6,397	87,983	322	10,545

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(1) Items (*a*) (*b*) and (*c*) were not separately enumerated prior to 1948.
(2) There were no exports in 1938 and 1939

TABLE 79: ASBESTOS

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philip-pines	Canada and New-foundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philip-pines	Canada and New-foundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa Kenya and Uganda (Manufactured) ..	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1939	—	—	—	—	—	—	2	2	—	—	—	—	—	—	21	21
	1946	—	—	—	—	—	—	37	37	—	—	—	—	—	—	1,426	1,426
	1947	20	—	—	—	—	20	182	202	480	—	—	—	—	480	4,934	5,414
	1948	—	—	—	—	—	—	5	5	—	—	—	—	—	—	293	293
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Africa **High Commission Territories** Swaziland	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1939	4,099	—	—	—	—	4,099	—	4,099	95,903	—	—	—	—	95,903	—	95,903
	1946	28,695	—	—	—	—	28,695	—	28,695	844,631	—	—	—	—	844,631	—	844,631
	1947	24,959	—	—	—	—	24,959	—	24,959	840,535	—	—	—	—	840,535	—	840,535
	1948	..	..	..	..	..	..	..	28,956	..	..	..	..	..	..	..	995,767
	1949	..	..	..	..	..	..	..	30,328	..	..	..	..	..	..	..	1,223,486
Mediterranean Cyprus	1938	2,555	467	5	—	2,551	5,578	—	5,578	39,514	3,981	59	—	44,737	88,291	—	88,291
	1939	4,204	85	3,457	—	2,467	10,213	—	10,213	52,414	673	20,208	—	43,392	116,687	—	116,687
	1946	965	1,181	—	—	4,460	6,606	—	6,606	35,231	31,824	—	—	115,049	182,104	—	182,104
	1947	2,139	1,447	—	—	3,435	7,021	—	7,021	82,944	51,795	—	—	125,636	260,375	—	260,375
	1948	1,533	149	—	—	6,298	7,980	—	7,980	53,795	5,000	—	—	316,145	374,940	—	374,940
	1949	2,120	1,745	—	—	7,233	11,098	—	11,098	74,384	73,393	—	—	373,018	520,795	—	520,795
Totals	1938	2,555	467	5	—	2,551	5,578	—	5,578	39,514	3,981	59	—	44,737	88,291	—	88,291
	1939	8,303	85	3,457	—	2,467	14,312	2	14,314	148,317	673	20,208	—	43,392	212,590	21	212,611
	1946	29,660	1,181	—	—	4,460	35,301	37	35,338	879,862	31,824	—	—	115,049	1,026,735	1,426	1,028,161
	1947	27,118	1,447	—	—	3,435	32,000	182	32,182	923,959	51,795	—	—	125,636	1,101,390	4,934	1,106,324
	1948	..	..	..	..	..	..	..	36,941	..	..	..	..	..	..	..	1,371,000
	1949	..	..	..	..	..	..	..	41,426	..	..	..	..	..	..	..	1,744,281

TABLE 80 : BAUXITE

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Gold Coast (1)	1946	112,760	—	—	—	1,486	114,246	—	114,246	360,832	—	—	—	4,755	365,587	—	365,587
	1947	95,898	—	—	—	—	95,898	—	95,898	306,874	—	—	—	—	306,874	—	306,874
	1948	130,953	—	—	—	—	130,953	—	130,953	259,149	—	—	—	—	259,149	—	259,149
	1949	145,013	—	—	—	—	145,013	—	145,013	274,856	—	—	1	—	274,857	—	274,857
West Indies																	
British Guiana	1938	23,949	—	59,225	292,694	500	376,368	—	376,368	29,468	—	86,501	303,697	1,224	420,890	—	420,890
	1939	12,203	—	30,566	429,413	3,831	476,013	—	476,013	15,908	—	48,983	529,329	7,732	601,952	—	601,952
	1946	8,285	—	68,182	1,033,982	9,566	1,120,015	—	1,120,015	14,195	—	117,366	1,099,884	31,638	1,263,083	—	1,263,083
	1947	37,380	—	156,406	1,094,801	1,780	1,290,367	—	1,290,367	58,747	—	237,813	1,101,617	3,721	1,401,898	—	1,401,898
	1948	19,305	—	104,754	1,746,092	3,015	1,873,166	—	1,873,166	29,279	—	178,742	1,767,108	7,127	1,982,256	—	1,982,256
	1949	29,124	—	126,255	1,591,561	10,680	1,757,620	30	1,757,650	63,866	—	297,179	2,108,379	32,364	2,501,788	161	2,501,949

N.B. In 1938, Malaya had some entrepôt trade in this commodity.

(1) Bauxite was not separately enumerated. In 1939, 16 tons only was exported ; no value is available.

TABLE 81 : CHROME ORE

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Sierra Leone	1938	143	—	354	—	—	497	1	498	289	—	812	—	—	1,101	2	1,103
	1939	—	—	5,600	—	101	5,701	—	5,701	—	—	11,433	—	253	11,686	—	11,686
	1946	1,601	—	29,700	—	—	31,301	—	31,301	8,004	—	132,792	—	—	140,796	—	140,796
	1947	6,000	—	16,687	—	—	22,687	—	22,687	30,250	—	82,126	—	—	112,376	—	112,376
	1948	1,000	—	7,400	—	11	8,411	—	8,411	5,292	—	37,308	—	55	42,655	—	42,655
	1949	—	—	17,656	—	—	17,656	—	17,656	—	—	91,732	—	—	91,732	—	91,732
Mediterranean																	
Cyprus	1938	—	—	—	—	7,442	7,442	—	7,442	—	—	—	—	19,736	19,736	—	19,736
	1939	—	—	—	—	1,100	1,100	—	1,100	1	—	—	—	2,915	2,916	—	2,916
	1946	—	—	—	—	1,140	1,140	—	1,140	—	—	—	—	6,600	6,600	—	6,600
	1947	—	—	—	—	5,200	5,200	—	5,200	—	—	—	—	29,000	29,000	—	29,000
	1948	—	—	4,870	—	1,920	6,790	—	6,790	—	—	29,220	—	11,670	40,890	—	40,890
	1949	—	—	—	—	14,640	14,640	—	14,640	—	—	—	—	115,120	115,120	—	115,120

TABLE 82 : COPPER

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Northern Rhodesia(1) Blister and Electrolytic . .	1938	98,461	3,787	—	—	117,173	219,421	—	219,421	3,938,380	144,585	—	—	4,772,754	8,855,719	—	8,855,719
	1939	158,921	5,237	—	—	43,702	207,860	—	207,860	6,813,734	233,263	—	—	1,854,966	8,901,963	—	8,901,963
	1946	130,016	8,415	—	—	42,250	180,681	8	180,689	7,487,153	482,524	—	—	2,404,105	10,373,782	475	10,374,257
	1947	134,737	8,269	—	—	42,883	185,889	7	185,896	12,880,084	809,372	—	—	4,001,104	17,690,560	753	17,691,313
	1948	177,446	22,181	—	—	16,203	215,830	4	215,834	19,878,372	2,405,858	—	—	1,730,652	24,014,882	580	24,015,462
	1949	191,787	22,867	—	—	28,764	243,418	—	243,418	22,344,197	2,422,568	—	—	3,052,183	27,818,948	—	27,818,948
Mediterranean																	
Cyprus (2) . . . . . . Cupreous Concentrates . .	1938	—	—	7,850	—	138,700	146,550	—	146,550	—	—	54,165	—	714,082	768,247	—	768,247
	1939	—	—	8,370	—	95,300	103,670	—	103,670	—	—	57,892	—	686,960	744,852	—	744,852
	1946	—	—	—	—	400	400	—	400	—	—	—	—	3,200	3,200	—	3,200
	1947	—	—	—	—	66,710	66,710	—	66,710	—	—	—	—	977,335	977,335	—	977,335
	1948	—	—	11,850	—	67,250	79,100	—	79,100	—	—	188,790	—	1,067,710	1,256,500	—	1,256,500
	1949	—	—	46,225	—	65,165	111,390	—	111,390	2	—	725,190	—	1,005,950	1,731,142	—	1,731,142

N.B.—Small exports of Cupreous Concentrates from Northern Rhodesia have been excluded (See Introductory Note 5).

(1) In 1949 Northern Rhodesia showed an export of 78 tons of Copper Slimes (with a Copper content of approximately 33⅓%) : in previous years this commodity was included in " metal and metal manufactures, not separately enumerated " and separate figures are not available. The U.K. figures include small exports which are sent to the U.S.A. for refining in the first instance.

(2) In addition, Cyprus exported in 1948 and 1949, 1,550 and 2,010 tons of Copper Cement (valued at £85,562 and £96,970) respectively. The entire export went to U.S.A. in 1948 and to Egypt in 1949. See also Pyrites (Table 96).

TABLE 83: DIAMONDS

Colony, etc.	Year	Quantity (Carats)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Tanganyika	1938	—	3,590	—	—	—	3,590	—	3,590	—	3,608	—	—	—	3,608	—	3,608
	1939	—	3,445	—	—	—	3,445	—	3,445	—	12,555	—	—	—	12,555	—	12,555
	1946	119,446	—	—	—	—	119,446	—	119,446	981,833	—	—	—	—	981,833	—	981,833
	1947	92,229	—	—	—	—	92,229	—	92,229	629,589	—	—	—	—	629,589	—	629,589
	1948	148,103	—	—	—	—	148,103	—	148,103	1,040,459	—	—	—	—	1,040,459	—	1,040,459
	1949	131,031	—	—	—	—	131,031	—	131,031	1,009,706	—	—	—	—	1,009,706	—	1,009,706
West Africa																	
Gold Coast	1938	1,296,763	—	—	—	—	1,296,763	—	1,296,763	548,027	—	—	—	—	548,027	—	548,027
	1939	1,087,651	—	—	—	—	1,087,651	—	1,087,651	464,438	—	—	—	—	464,438	—	464,438
	1946	809,000	—	—	—	—	809,000	—	809,000	622,525	—	—	—	—	622,525	—	622,525
	1947	747,035	—	—	—	—	747,035	—	747,035	746,562	—	—	—	—	746,562	—	746,562
	1948	878,092	—	—	—	—	878,092	—	878,092	976,060	—	—	—	—	976,060	—	976,060
	1949	963,435	—	—	—	—	963,435	—	963,435	1,390,636	—	—	—	—	1,390,636	—	1,390,636
Sierra Leone..	1938	732,572	—	—	—	—	732,572	—	732,572	858,055	—	—	—	—	858,055	—	858,055
	1939	542,395	—	—	—	—	542,395	—	542,395	644,100	—	—	—	—	644,100	—	644,100
	1946	304,896	—	—	—	—	304,896	—	304,896	513,237	—	—	—	—	513,237	—	513,237
	1947	574,336	—	—	—	—	574,336	—	574,336	1,117,153	—	—	—	—	1,117,153	—	1,117,153
	1948	461,685	—	—	—	—	461,685	—	461,685	923,368	—	—	—	—	923,368	—	923,368
	1949	537,397	—	—	—	—	537,397	—	537,397	1,097,813	—	—	—	—	1,097,813	—	1,097,813
Totals	1938	2,029,335	—	—	—	—	2,029,335	—	2,029,335	1,406,082	—	—	—	—	1,406,082	—	1,406,082
	1939	1,630,046	—	—	—	—	1,630,046	—	1,630,046	1,108,538	—	—	—	—	1,108,538	—	1,108,538
	1946	1,113,896	—	—	—	—	1,113,896	—	1,113,896	1,135,762	—	—	—	—	1,135,762	—	1,135,762
	1947	1,321,371	—	—	—	—	1,321,371	—	1,321,371	1,863,715	—	—	—	—	1,863,715	—	1,863,715
	1948	1,339,777	—	—	—	—	1,339,777	—	1,339,777	1,899,428	—	—	—	—	1,899,428	—	1,899,428
	1949	1,500,832	—	—	—	—	1,500,832	—	1,500,832	2,488,449	—	—	—	—	2,488,449	—	2,488,449
West Indies																	
British Guiana	1938	9,745	—	422	25	23,317	33,509	—	33,509	23,598	—	1,480	47	53.444	78,569	—	78,569
	1939	15,170	—	1,350	—	16,832	33,352	—	33,352	41,339	—	3,570	—	43,604	88,513	—	88,513
	1946	23,229	—	3,764	740	1,616	29,349	11	29,360	188,329	—	60,752	5,678	10,983	265,742	767	266,509
	1947	22,838	—	1,342	463	1,905	26,548	5	26,553	129,344	—	18,163	4,692	16,014	168,213	195	168,408
	1948	33,782	—	1,015	7	—	34,804	4	34,808	264,729	—	10,957	208	—	275,894	153	276,047
	1949(1)	34,261	—	358	—	615	35,234	—	35,234	239,414	—	3,238	—	5,094	247,746	—	247,746
Grand Totals	1938	2,039,080	3,590	422	25	23,317	2,066,434	—	2,066,434	1,429,680	3,608	1,480	47	53,444	1,488,259	—	1,488,259
	1939	1,645,216	3,445	1,350	—	16,832	1,666,843	—	1,666,843	1,149,877	12,555	3,570	—	43,604	1,209,606	—	1,209,606
	1946	1,256,571	—	3,764	740	1,616	1,262,691	11	1,262,702	2,305,924	—	60,752	5,678	10,983	2,383,337	767	2,384,104
	1947	1,436,438	—	1,342	463	1,905	1,440,148	5	1,440,153	2,622,648	—	18,163	4,692	16,014	2,661,517	195	2,661,712
	1948	1,521,662	—	1.015	7	—	1,522,684	4	1,522,688	3,204,616	—	10,957	208	—	3,215,781	153	3,215,934
	1949	1,666,124	—	358	—	615	1,667,097	—	1,667,097	3,737,569	—	3,238	—	5,094	3,745,901	—	3,745,901

(1) Converted from Old Dutch carats to metric carats. 1 Old Dutch carat = 1·025 metric carats.

I. MINERALS

TABLE 84: GOLD BULLION

		Quantity (Fine Troy Ounces)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda ..	1938	93,300	—	—	—	—	93,300	100	93,400	664,944	—	—	—	—	664,944	675	665,619
	1939	100,400	—	—	—	—	100,400	—	100,400	715,417	—	—	—	—	715,417	—	715,417
	1946	—	33,300	—	—	—	33,300	—	33,300	—	287,047	—	—	—	287,047	—	287,047
	1947	—	22,300	—	—	—	22,300	—	22,300	—	191,789	—	—	—	191,789	—	191,789
	1948	—	28,000	—	—	—	28,000	—	28,000	—	241,150	—	—	—	241,150	—	241,150
	1949	100	29,800	—	—	—	29,900	—	29,900	790	285,008	—	—	—	285,798	—	285,798
Tanganyika	1938	75,900	6,700	—	—	—	82,600	—	82,600	541,337	47,798	—	—	—	589,135	—	589,135
	1939	113,200	13,800	—	—	—	127,000	—	127,000	873,732	106,614	—	—	—	980,346	—	980,346
	1946	—	48,427	—	—	—	48,427	—	48,427	—	417,677	—	—	—	417,677	—	417,677
	1947	—	47,317	—	—	—	47,317	—	47,317	—	408,114	—	—	—	408,114	—	408,114
	1948	—	62,339	—	—	—	62,339	—	62,339	—	498,560	—	—	—	498,560	—	498,560
	1949	—	58,423	—	—	—	58,423	—	58,423	—	619,941	—	—	—	619,941	—	619,941
Totals	1938	169,200	6,700	—	—	—	175,900	100	176,000	1,206,281	47,798	—	—	—	1,254,079	675	1,254,754
	1939	213,600	13,800	—	—	—	227,400	—	227,400	1,589,149	106,614	—	—	—	1,695,763	—	1,695,763
	1946	—	81,800	—	—	—	81,800	—	81,800	—	704,724	—	—	—	704,724	—	704,724
	1947	—	69,600	—	—	—	69,600	—	69,600	—	599,903	—	—	—	599,903	—	599,903
	1948	—	90,300	—	—	—	90,300	—	90,300	—	739,710	—	—	—	739,710	—	739,710
	1949	100	88,200	—	—	—	88,300	—	88,300	790	904,949	—	—	—	905,739	—	905,739
West Africa																	
Gold Coast	1938	677,480	—	—	—	—	677,480	—	677,480	4,841,633	—	—	—	—	4,841,633	—	4,841,633
	1939	793,099	—	—	—	—	793,099	—	793,099	6,177,725	—	—	—	—	6,177,725	—	6,177,725
	1946	646,559	—	—	—	—	646,559	—	646,559	5,568,486	—	—	—	—	5,568,486	—	5,568,486
	1947	568,471	—	—	—	—	568,471	—	568,471	4,895,954	—	3	—	—	4,895,957	—	4,895,957
	1948	670,645	—	—	—	—	670,645	—	670,645	5,754,021	—	—	—	—	5,754,021	—	5,754,021
	1949	656,431	—	—	—	—	656,431	—	656,431	6,413,825	—	—	—	—	6,413,825	—	6,413,825
Nigeria	1938	24,970	—	—	—	—	24,970	—	24,970	176,069	—	—	—	—	176,069	—	176,069
	1939	25,593	—	—	—	—	25,593	—	25,593	212,426	—	—	—	—	212,426	—	212,426
	1946	1,984	—	—	—	—	1,984	—	1,984	17,085	—	—	—	—	17,085	—	17,085
	1947	691	—	—	—	—	691	—	691	6,768	—	—	—	—	6,768	—	6,768
	1948	41	—	—	—	—	41	—	41	362	—	—	—	—	362	—	362
	1949	176	—	—	—	—	176	—	176	1,884	—	—	—	—	1,884	—	1,884
Sierra Leone	1938	31,505	—	—	—	—	31,505	—	31,505	207,940	—	—	—	—	207,940	—	207,940
	1939	37,454	—	—	—	—	37,454	—	37,454	247,199	—	—	—	—	247,199	—	247,199
	1946	222	—	—	—	—	222	—	222	1,522	—	—	—	—	1,522	—	1,522
	1947	680	—	—	—	—	680	—	680	5,097	—	—	—	—	5,097	—	5,097
	1948	3,996	—	—	—	—	3,996	—	3,996	29,971	—	—	—	—	29,971	—	29,971
	1949	2,046	—	—	—	—	2,046	—	2,046	20,969	—	—	—	—	20,969	—	20,969
Totals	1938	733,955	—	—	—	—	733,955	—	733,955	5,225,642	—	—	—	—	5,225,642	—	5,225,642
	1939	856,146	—	—	—	—	856,146	—	856,146	6,637,350	—	—	—	—	6,637,350	—	6,637,350
	1946	648,765	—	—	—	—	648,765	—	648,765	5,587,093	—	—	—	—	5,587,093	—	5,587,093
	1947	569,842	—	—	—	—	569,842	—	569,842	4,907,819	—	3	—	—	4,907,822	—	4,907,822
	1948	674,682	—	—	—	—	674,682	—	674,682	5,784,354	—	—	—	—	5,784,354	—	5,784,354
	1949	658,653	—	—	—	—	658,653	—	658,653	6,436,678	—	—	—	—	6,436,678	—	6,436,678

TABLE 84: GOLD BULLION—(*continued*).

		Quantity (Fine Troy Ounces)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
South Africa																	
High Commission Territories																	
Bechuanaland	1938	—	19,111	—	—	—	19,111	—	19,111	—	133,139	—	—	—	133,139	—	133,139
	1939	—	17,219	—	—	—	17,219	—	17,219	—	132,935	—	—	—	132,935	—	132,935
	1946	—	9,741	—	—	—	9,741	—	9,741	—	83,902	—	—	—	83,902	—	83,902
	1947	—	7,068	—	—	—	7,068	—	7,068	—	68,685	—	—	—	68,685	—	68,685
	1948	—	..	..	..	..	..	..	1,507	—	..	..	..	..	..	..	12,993
	1949	—	300	—	—	—	300	—	300	—	3,112	—	—	—	3,112	—	3,112
Swaziland	1938	—	1,246	—	—	—	1,246	—	1,246	—	9,035	—	—	—	9,035	—	9,035
	1939	—	983	—	—	—	983	—	983	—	7,314	—	—	—	7,314	—	7,314
	1946	—	4,914	—	—	—	4,914	—	4,914	—	39,471	—	—	—	39,471	—	39,471
	1947	—	5,637	—	—	—	5,637	—	5,637	—	45,603	—	—	—	45,603	—	45,603
	1948	..	..	..	..	..	..	..	3,110	..	..	..	..	..	..	—	24,994
	1949	..	..	..	..	..	..	..	2,841	..	..	..	..	..	..	..	25,443
Totals	1938	—	20,357	—	—	—	20,357	—	20,357	—	142,174	—	—	—	142,174	—	142,174
	1939	—	18,202	—	—	—	18,202	—	18,202	—	140,249	—	—	—	140,249	—	140,249
	1946	—	14,655	—	—	—	14,655	—	14,655	—	123,373	—	—	—	123,373	—	123,373
	1947	—	12,705	—	—	—	12,705	—	12,705	—	114,288	—	—	—	114,288	—	114,288
	1948	..	..	..	..	..	..	..	4,617	..	..	..	..	..	..	..	37,987
	1949	..	..	..	..	..	..	..	3,141	..	..	..	..	..	..	..	28,555
Eastern																	
Federation of Malaya and Singapore (1)	1938	15,300	100	5,000	—	56,000	76,300	44,000	120,300	109,132	443	35,303	—	398,881	543,759	313,615	857,374
	1939	8,000	—	4,400	—	56,200	68,600	2,500	71,200	61,514	—	34,183	—	433,915	529,612	19,669	549,281
	1946	1,400	—	—	—	—	1,400	—	1,400	12,452	—	—	—	—	12,452	—	12,452
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	8,900	—	—	—	—	8,900	—	8,900	76,488	—	—	—	—	76,488	—	76,488
	1949	14,500	—	—	—	—	14,500	—	14,500	141,711	—	—	—	—	141,711	—	141,711
Sarawak	1938	..	..	..	..	..	..	..	18,200	..	..	..	..	..	..	..	129,891
	1939	..	..	..	..	..	..	..	17,300	..	..	..	..	..	..	..	133,135
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	..	..	..	..	..	..	..	900	..	..	..	..	..	..	..	7,642
	1949	..	..	..	..	..	..	..	1,400	..	..	..	..	..	..	..	13,061
Totals	1938	..	..	..	..	..	..	..	138,500	..	..	..	..	..	..	..	987,265
	1939	..	..	..	..	..	..	..	88,500	..	..	..	..	..	..	..	682,416
	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	..	..	..	..	..	..	..	9,800	..	..	..	..	..	..	..	84,130
	1949	..	..	..	..	..	..	..	15,900	..	..	..	..	..	..	..	154,772
West Indies																	
British Guiana	1938	29,300	—	—	—	700	30,000	100	30,100	208,853	—	—	—	4,930	213,783	962	214,745
	1939	17,200	—	10,900	—	100	28,200	400	28,600	132,733	—	83,917	13	928	217,591	3,371	220,962
	1946	—	—	8,600	—	—	8,600	—	8,600	—	—	73,545	—	412	73,957	—	73,957
	1947	—	—	13,500	—	—	13,500	—	13,500	93	—	116,097	—	29	116,219	—	116,219
	1948	—	—	12,800	—	—	12,800	—	12,800	—	—	110,413	—	—	110,413	—	110,413
	1949	—	—	13,200	—	—	13,200	—	13,200	—	—	129,630	—	—	129,630	—	129,630

TABLE 84: GOLD BULLION—*(continued)*

		Quantity (Fine Troy Ounces)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Western Pacific																	
Fiji	1938	—	89,354	—	—	—	89,354	—	89,354	—	631,777	—	—	—	631,777	—	631,777
	1939	63	86,643	21,408	—	—	108,114	—	108,114	457	660,123	175,571	—	—	836,151	—	836,151
	1946	13	1,106	67,740	—	—	68,859	—	68,859	105	9,528	582,733	—	—	592,366	—	592,366
	1947	42	165	134,715	—	—	134,922	—	134,922	360	1,418	1,159,285	—	—	1,161,063	—	1,161,063
	1948	—	134	105,578	—	—	105,712	—	105,712	—	1,166	909,848	—	—	911,014	—	911,014
	1949	—	32	104,083	—	—	104,115	—	104,115	—	307	1,011,622	—	—	1,011,929	—	1,011,929
Grand Totals .. .. (Excluding Bechuanaland Swaziland and Sarawak)	1938	947,800	96,200	5,000	—	56,700	1,105,500	44,200	1,149,700	6,749,908	680,018	35,303	—	403,811	7,869,040	315,252	8,184,292
	1939	1,095,000	100,400	36,700	—	56,300	1,288,500	2,900	1,291,500	8,421,203	766,737	293,671	13	434,843	9,916,467	23,040	9,939,507
	1946	650,200	82,900	76,300	—	—	809,400	—	809,400	5,599,650	714,252	656,278	—	412	6,970,592	—	6,970,592
	1947	569,900	69,800	148,200	—	—	787,900	—	787,900	4,908,272	601,321	1,275,385	—	29	6,785,007	—	6,785,007
	1948	683,600	90,400	118,400	—	—	892,400	—	892,400	5,860,842	740,876	1,020,261	—	—	7,621,979	—	7,621,979
	1949	673,300	88,200	117,300	—	—	878,800	—	878,800	6,579,179	905,256	1,141,252	—	—	8,625,687	—	8,625,687

N.B.—Small exports from Northern Rhodesia have been excluded (see Introductory Note 5).

There were also small exports of Gold Ore (Kenya and Uganda and Cyprus) and Gold Concentrates (Tanganyika). See also " Yellow Ore " (Cyprus), Table 96.

Figures for Kenya and Uganda (1938-1949), Tanganyika (1938 and 1939), Federation of Malaya and Singapore (1938-1949), Sarawak (1938-1949) and British Guiana (1938-1949) are estimated and rounded to the nearest hundred. Totals and Grand Totals may not agree due to rounding.

(1) Imports of Malaya were as follows :—

Year	*Quantity* ('000 *Fine Troy oz.*)	*Value* (£'000)
1938	78·3	559
1939	21·3	164
1946	—	—
1947	—	—
1948	1·3	11
1949	1·3	13

TABLE 85: IRON ORE

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Sierra Leone (1)	1938	..	—	—	—	..	..	—	861,955	143,401	—	—	—	503,020	646,421	—	646,421
	1939	..	—	..	—	..	..	—	828,560	139,393	—	8,640	—	502,292	650,325	—	650,325
	1946	..	—	—	—	—	..	—	603,945	546,089	—	—	—	—	546,089	—	546,089
	1947	..	—	..	—	—	..	—	618,750	546,568	—	20,916	—	—	567,484	—	567,484
	1948	..	—	..	—	..	..	—	926,370	740,705	—	18,269	—	110,264	869,238	—	869,238
	1949	..	—	..	—	..	..	—	974,050	784,172	—	85,425	—	126,955	996,552	—	996,552
Eastern																	
Federation of Malaya and Singapore	1938	—	201	—	—	1,531,528	1,531,729	—	1,531,729	—	338	—	—	858,023	858,361	—	858,361
	1939	—	302	—	—	1,944,863	1,945,165	—	1,945,165	—	553	—	—	1,067,768	1,068,321	—	1,068,321
	1946	—	3	—	—	—	3	—	3	—	15	—	—	—	15	—	15
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	—	—	—	69,539	69,539	—	69,539	—	—	—	—	69,615	69,615	—	69,615
	1949	—	—	—	—	461,796	461,796	634	462,430	—	—	—	—	783,629	783,629	634	784,263
Totals	1938								2,393,684	143,401	338	—	—	1,361,043	1,504,782	—	1,504,782
	1939								2,773,725	139,393	553	8,640	—	1,570,060	1,718,646	—	1,718,646
	1946								603,948	546,089	15	—	—	—	546,104	—	546,104
	1947								618,750	546,568	—	20,916	—	—	567,484	—	567,484
	1948								995,909	740,705	—	18,269	—	179,879	938,853	—	938,853
	1949								1,436,480	784,172	—	85,425		910,584	1,780,181	634	1,780,815

N.B.—Small exports from Nigeria have been excluded.

(1) 1938 and 1939 quantity figures obtained from Imperial Institute.

TABLE 86: IRON SCRAP

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
Eastern Federation of Malaya and Singapore (1)	1938	—	—	—	—	3,021	3,021	297	3,318	—	—	—	—	7,077	7,077	1,324	8,401
	1939	—	—	—	—	1,880	1,880	167	2,047	—	—	—	—	4,704	4,704	586	5,290
	1946	—	—	—	—	172	172	272	444	—	—	—	—	2,645	2,645	5,074	7,719
	1947	9	—	—	—	150	159	1,302	1,461	58	—	—	—	1,872	1,930	15,129	17,059
	1948	25,529	—	800	16,300	3,668	46,297	6,777	53,074	173,415	—	3,733	73,210	57,015	307,373	70,715	378,088
	1949	41,385	741	—	4,073	1,948	48,147	2,384	50,531	197,079	5,157	—	19,958	26,913	249,107	32,219	281,326
West Indies Trinidad and Tobago ..	1938	7	—	—	—	—	7	—	7	15	—	—	—	—	15	—	15
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	29	—	60	89	20	109	—	—	796	—	250	1,046	560	1,606
	1948	2,200	—	75	—	—	2,275	—	2,275	8,333	—	563	—	—	8,896	—	8,896
	1949	2,275	—	275	1,820	—	4,370	3	4,373	16,883	—	2,979	5,571	—	25,433	68	25,501
Totals	1938	7	—	—	—	3,021	3,028	297	3,325	15	—	—	—	7,077	7,092	1,324	8,416
	1939	—	—	—	—	1,880	1,880	167	2,047	—	—	—	—	4,704	4,704	586	5,290
	1946	—	—	—	—	172	172	272	444	—	—	—	—	2,645	2,645	5,074	7,719
	1947	9	—	29	—	210	248	1,322	1,570	58	—	796	—	2,122	2,976	15,689	18,665
	1948	27,729	—	875	16,300	3,668	48,572	6,777	55,349	181,748	—	4,296	73,210	57,015	316,269	70,715	386,984
	1949	43,660	741	275	5,893	1,948	52,517	2,387	54,904	213,962	5,157	2,979	25,529	26,913	274,540	32,287	306,827

(1) Imports of Malaya were as follows :—

Year	Quantity (Tons)	Value (£)
1938	1,104	4,065
1939	641	2,746
1946	12	301
1947	52	1,206
1948	718	4,590
1949	2,466	18,193

TABLE 87 : LEAD (BAR, INGOT OR PIG AND SHEET)

		Quantity (Tons)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Northern Rhodesia (1) ..	1946	418	5,551	—	—	124	6,093	2	6,095	23,387	260,323	—	—	6,814	290,524	111	290,635
	1947	5,274	6,685	—	—	1,719	13,678	12	13,690	388,581	468,070	—	—	139,668	996,319	915	997,234
	1948	3,800	7,529	400	—	1,456	13,185	4	13,189	315,473	664,069	36,003	—	138,740	1,154,285	320	1,154,605
	1949	3,302	7,333	—	—	1,712	12,347	—	12,347	338,926	722,930	—	—	147,903	1,209,759	—	1,209,759
Eastern																	
Federation of Malaya and Singapore (2)	1938	—	—	—	—	69	69	5	74	—	—	—	—	1,300	1,300	108	1,408
	1939	—	—	—	—	56	56	15	71	—	—	—	—	1,106	1,106	177	1,283
	1946	—	—	11	—	37	48	19	67	—	—	242	—	747	989	437	1,426
	1947	2,097	7	5	—	285	2,394	42	2,436	116,418	150	118	—	22,034	138,720	1,289	140,009
	1948	1,806	4	4	—	28	1,842	2	1,844	144,283	139	157	—	1,734	146,313	119	146,432
	1949	684	1	3	—	43	731	2	733	60,484	56	118	—	2,296	62,954	283	63,237

N.B.—Tanganyika exported a small quantity of Lead and Lead-Silver Ore.

(1) There were no exports in 1938 and 1939.

(2) Imports of Malaya were as follows :—

Year	Quantity (Tons)	Value (£)
1938	304	5,030
1939	624	9,910
1946	232	12,436
1947	3	95
1948	35	4,198
1949	225	27,553

TABLE 88 : LIME PHOSPHATE

		Quantity (Tons)								Value (£)							
Colony, etc.	Year	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
Eastern																	
Federation of Malaya and Singapore (1)	1938	—	13,152	—	—	133,575	146,727	11	146,738	—	21,540	—	—	218,182	239,722	45	239,767
	1939	—	5,933	10	—	153,814	159,757	153	159,910	—	9,780	40	—	251,322	261,142	652	261,794
	1946	—	32,423	—	—	—	32,423	10	32,433	—	81,058	—	—	—	81,058	68	81,126
	1947	—	102,904	—	—	1	102,905	—	102,905	—	258,118	—	—	8	258,126	—	258,126
	1948	—	163,461	—	—	5	163,466	32	163,498	—	410,015	—	—	57	410,072	307	410,379
	1949	—	218,549	—	—	—	218,549	1	218,550	—	548,195	—	—	2	548,197	10	548,207
Western Pacific																	
Gilbert and Ellice Islands (2)	1938	—	254,700	—	—	75,100	329,800	—	329,800	—	183,384	—	—	54,072	237,456	—	237,456
	1939	6,500	246,090	—	—	45,298	297,888	—	297,888	3,640	137,810	—	—	25,367	166,817	—	166,817
	1946	..	..	..	..	..	..	..	29,200	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	209,100	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	124,909	..	..	..	..	..	..	..	..
	1949	..	..	..	..	..	..	..	260,900(3)	..	..	..	..	..	..	..	..
Totals	1938	—	267,852	—	—	208,675	476,527	11	476,538	—	204,924	—	—	272,254	477,178	45	477,223
	1939	6,500	252,023	10	—	199,112	457,645	153	457,798	3,640	147,590	40	—	276,689	427,959	652	428,611
	1946	..	..	..	..	..	..	..	61,633	..	..	..	..	..	..	..	..
	1947	..	..	..	..	..	..	..	312,005	..	..	..	..	..	..	..	..
	1948	..	..	..	..	..	..	..	288,407	..	..	..	..	..	..	..	..
	1949	..	..	..	..	..	..	..	479,450(3)	..	..	..	..	..	..	..	..

(1) Exports for all years were almost entirely from Christmas Island. Imports of Malaya were as follows :—

Year	Quantity (Tons)	Value (£)
1938	4,740	16,243
1939	4,215	13,379
1946	165	2,526
1947	75	781
1948	—	—
1949	—	—

(2) Exports for all years were entirely from Ocean Island. 1938 figures—July 1937 to June 1938 inclusive. 1939 figures—July 1938 to June 1939 inclusive.

(3) Approximate figures.

TABLE 89: MANGANESE ORE

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Gold Coast	1938	13,240	—	186,298	23,514	101,155	324,207	—	324,207	91,190	—	493,338	58,798	264,646	907,972	—	907,972
	1939	31,184	—	179,707	7,018	118,403	336,312	—	336,312	138,929	—	374,696	13,027	262,954	789,606	—	789,606
	1946	273,523	—	377,745	42,715	71,317	765,300	—	765,300	782,832	—	1,169,387	110,993	201,503	2,264,715	—	2,264,715
	1947	190,823	—	288,996	32,003	77,097	588,919	—	588,919	688,322	—	1,128,727	115,325	300,665	2,233,039	—	2,233,039
	1948	211,865	—	276,947	22,124	119,037	629,973	—	629,973	956,913	—	1,163,697	83,039	495,057	2,698,706	—	2,698,706
	1949	236,236	955	387,901	5,453	110,524	741,069	—	741,069	1,261,249	10,000	2,132,451	24,453	577,926	4,006,079	—	4,006,079
Eastern																	
Federation of Malaya and Singapore (1)	1938	—	—	—	—	30,570	30,570	—	30,570	—	—	—	—	33,058	33,058	—	33,058
	1939	—	—	—	—	32,848	32,848	—	32,848	—	—	—	—	36,744	36,744	—	36,744
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	5	—	—	—	—	5	—	5	53	—	—	—	—	53	—	53
Totals	1938	13,240	—	186,298	23,514	131,725	354,777	—	354,777	91,190	—	493,338	58,798	297,704	941,030	—	941,030
	1939	31,184	—	179,707	7,018	151,251	369,160	—	369,160	138,929	—	374,696	13,027	299,698	826,350	—	826,350
	1946	273,523	—	377,745	42,715	71,317	765,300	—	765,300	782,832	—	1,169,387	110,993	201,503	2,264,715	—	2,264,715
	1947	190,823	—	288,996	32,003	77,097	588,919	—	588,919	688,322	—	1,128,727	115,325	300,665	2,233,039	—	2,233,039
	1948	216,865	—	276,947	22,124	119,037	629,973	—	629,973	956,913	—	1,163,697	83,039	495,057	2,698,706	—	2,698,706
	1949	236,241	955	387,901	5,453	110,524	741,074	—	741,074	1,261,302	10,000	2,132,451	24,453	577,926	4,006,132	—	4,006,132

N.B.—Other Exporters (See Introductory Note 5) : Nigeria, Cyprus, Fiji.

(1) Imports of Malaya were as follows :—

Year	*Quantity (Tons)*	*Value (£)*
1938	—	—
1939	10	163
1946	—	—
1947	45	1,259
1948	528	14,931
1949	180	5,198

TABLE 90: PETROLEUM PRODUCTS

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
Crude Petroleum (1)																	
Sarawak (2)	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1946(3)	..	..	..	..	..	..	..	219,418	..	..	..	..	..	..	..	486,376
	1947	..	..	..	..	..	..	..	706,675	..	..	..	..	..	..	..	2,768,123
	1948	..	..	..	..	..	..	..	1,169,665	..	..	..	..	..	..	..	5,754,049
	1949	..	..	..	..	..	..	..	1,768,681	..	..	..	..	..	..	..	8,413,414
Trinidad and Tobago ..	1938	74,587	—	—	—	13,325	87,912	—	87,912	98,958	—	—	—	20,033	118,991	—	118,991
	1939	4,093	—	8,244	—	16,779	29,116	—	29,116	5,469	—	12,054	—	22,950	40,473	—	40,473
	1946	1	—	—	12,069	—	12,070	10	12,080	8	—	—	38,250	—	38,258	78	38,336
	1947	—	—	—	118,192	—	118,192	—	118,192	—	—	—	391,466	—	391,466	—	391,466
	1948	—	—	—	280,199	—	280,199	25	280,224	—	—	—	1,191,885	—	1,191,885	276	1,192,161
	1949	—	—	—	263,589	—	263,589	—	263,589	—	—	—	1,086,463	—	1,086,463	—	1,086,463
Motor Spirit																	
Sarawak (2)	1938	..	..	..	..	..	..	..	94,428	..	..	..	..	..	..	..	362,281
	1939	..	..	..	..	..	..	..	118,589	..	..	..	..	..	..	..	451,694
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	..	..	..	..	..	..	..	48,879	..	..	..	..	..	..	..	312,619
	1948	..	..	..	..	..	..	..	122,699	..	..	..	..	..	..	..	830,758
	1949	..	..	..	..	..	..	..	160,136	..	..	..	..	..	..	..	1,325,996
Trinidad and Tobago ..	1938	294,243	—	1	—	126,127	420,371	29,307	449,678	1,318,852	—	3	—	603,567	1,922,422	158,265	2,080,687
	1939	343,633	—	2	—	164,176	507,811	37,192	545,003	1,527,063	—	10	—	698,760	2,225,833	181,538	2,407,371
	1946	379,817	9,832	—	—	140,028	529,677	23,058	552,735	2,156,191	55,838	—	—	776,091	2,988,120	145,713	3,133,833
	1947	362,632	15,001	578	13,244	164,325	555,780	74,871	630,651	2,603,493	108,981	5,166	112,160	1,376,660	4,206,460	570,408	4,776,868
	1948	294,315	—	468	8,886	256,528	560,197	71,979	632,176	2,546,682	—	4,391	84,839	2,371,521	5,007,433	627,933	5,635,366
	1949	227,464	—	777	14,654	335,024	577,919	75,040	652,959	2,389,375	—	9,047	107,360	3,426,318	5,932,100	771,896	6,703,996
Liquid Fuel (Fuel Oil)																	
Sarawak (2)	1938	..	..	..	..	..	..	..	698,865	..	..	..	..	..	..	..	752,362
	1939	..	..	..	..	..	..	..	651,830	..	..	..	..	..	..	..	658,539
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	..	..	..	..	..	..	..	891,368	..	..	..	..	..	..	..	2,760,869
	1948	..	..	..	..	..	..	..	1,339,345	..	..	..	..	..	..	..	6,453,148
	1949	..	..	..	..	..	..	..	1,383,817	..	..	..	..	..	..	..	6,019,823
Trinidad and Tobago ..	1938	510,297	—	—	—	922,384	1,432,681	197,539	1,630,220	748,321	—	—	—	1,349,203	2,097,524	266,788	2,364,312
	1939(4)	438,673	—	—	—	1,293,451	1,732,124	116,086	1,848,210	649,110	—	—	—	2,163,055	2,812,165	166,371	2,978,536
	1946	260,558	—	—	—	1,319,821	1,580,379	130,998	1,711,377	609,592	—	—	—	2,459,055	3,068,647	272,565	3,341,212
	1947	335,976	20,568	—	27,343	1,545,972	1,929,859	93,891	2,023,750	1,089,669	69,223	—	85,869	4,284,285	5,529,046	283,843	5,812,889
	1948	329,849	2,790	—	—	1,779,611	2,112,250	88,056	2,200,306	1,494,880	13,633	—	—	7,292,621	8,801,134	385,542	9,186,676
	1949	316,683	840	117,507	—	2,090,533	2,525,563	69,335	2,594,898	1,262,105	4136	405,077	—	6,453,933	8,125,251	265,193	8,390,444
Gas Oil																	
Sarawak (2)	1938	..	..	..	..	..	..	..	40,630	..	..	..	..	..	..	..	43,753
	1939	..	..	..	..	..	..	..	60,276	..	..	..	..	..	..	..	60,082
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 90: PETROLEUM PRODUCTS—(*continued*).

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Gas Oil—(*continued*)																	
Trinidad and Tobago ..	1938	31,158	—	1	—	67,431	98,590	4,730	103,320	91,279	—	2	—	165,152	256,433	13,887	270,320
	1939(4)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1946	62,596	—	5	—	54,193	116,794	11,111	127,905	240,806	—	20	—	209,463	450,289	42,676	492,965
	1947	23,015	—	604	8,310	98,143	130,072	17,159	147,231	123,117	—	3,403	39,077	484,704	650,301	83,151	733,452
	1948	92,111	—	562	—	165,072	257,745	17,158	274,903	704,895	—	14,835	—	1,106,011	1,825,741	103,370	1,929,111
	1949	58,737	—	53,467	814	182,640	295,658	19,869	315,527	578,140	—	206,794	48,588	1,168,712	2,002,234	118,055	2,120,289
Kerosene and Lamp Oil																	
Sarawak (2) (Kerosene) ..	1938	..	..	..	..	..	..	..	62,656	..	..	..	..	..	..	..	167,392
	1939	..	..	..	..	..	..	..	54,580	..	..	..	..	..	..	..	138,717
	1946(3)	..	..	..	..	..	..	..	26	..	..	..	..	..	..	..	582
	1947	..	..	..	..	..	..	..	25,351	..	..	..	..	..	..	..	135,970
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	..	..	..	..	..	..	..	189	..	..	..	..	..	..	..	4,524
Trinidad and Tobago (Lamp Oil)	1938	—	—	—	—	4,248	4,248	9,036	13,284	—	—	—	—	25,484	25,484	49,059	74,543
	1939	—	—	—	—	3,864	3,864	8,067	11,931	1	—	—	—	25,087	25,088	60,196	85,284
	1946	353,967	1,886	—	—	20,410	376,263	7,083	383,346	1,402,881	6,555	—	—	94,351	1,503,787	49,384	1,553,171
	1947	194,090	—	—	—	21,999	216,089	15,372	231,461	842,329	—	—	—	134,969	977,298	116,095	1,093,393
	1948	169,454	—	—	—	30,756	200,210	13,758	213,968	1,055,216	—	—	—	241,058	1,296,274	132,157	1,428,431
	1949	168,559	—	—	—	50,566	219,125	16,648	235,773	1,278,187	—	—	—	374,504	1,652,691	147,083	1,799,774
Road Oil																	
Trinidad and Tobago ..	1938	1	—	—	—	1,225	1,226	3,775	5,001	3	—	—	—	4,726	4,729	14,653	19,382
	1939	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1946	1,049	—	1,830	—	858	3,737	5,199	8,936	28,084	—	32,830	—	8,615	69,529	20,545	90,074
	1947	1,298	479	—	—	577	2,354	4,831	7,185	50,771	12,702	—	—	2,334	65,807	19,916	85,723
	1948	943	921	—	—	343	2,207	6,531	8,738	27,600	16,198	—	—	1,937	45,735	44,836	90,571
	1949	960	3,509	458	—	576	5,503	5,966	11,469	48,137	53,212	10,950	—	5,817	118,116	52,481	170,587

N.B. Other Exporters (See Introductory Note 5). Trinidad and Tobago (Lubricating Oil and other unspecified) : Sarawak (Lubricating Oil and Machine Oil).

Conversions from liquid measure to weight were made at the following rates :—

Crude	261 gallons per ton.
Motor Spirit	300 ,, ,, ,,
Fuel Oil and Liquid Fuel	236 ,, ,, ,,
Gas Oil	263 ,, ,, ,,
Kerosene and Lamp Oil	278 ,, ,, ,,
Road Oil	229 ,, ,, ,,

(1) Exports of Crude Petroleum from Brunei are excluded as they are piped to Sarawak for refining and re-export.
(2) Imports of Sarawak were as follows :—

Year	*Crude*		*Motor Spirit*		*Liquid Fuel*		*Gas Oil*		*Kerosene*	
	Tons	*£*	*Tons*	*£*	*Tons*	*£*	*Tons*	*£*	*Tons*	*£*
1938	692,024	659,619	790	20,517	27,569	26,671	—	—	2,876	53,658
1939	766,006	761,192	1,129	29,865	3	41	—	—	3,021	60,428
1946	232,068	444,654	628	21,975	2,213	39,332	—	—	1,227	29,848
1947	1,689,965	3,446,474	1,331	28,034	3,975	28,716	—	—	3,110	46,453
1948	2,641,516	5,499,747	1,406	25,841	3,564	29,564	837	8,584	3,783	63,291
1949	3,290,440	7,015,300	1,768	43,637	2,434	41,018	2,285	28,536	4,098	98,455

(3) In 1946 all figures for Sarawak relate to the period April-December.
(4) In 1939 Liquid Fuel and Gas Oil are combined under Liquid Fuel.

TABLE 91 : SALT

Colony, etc.	Year	Unit	Quantity								Value (£)							
			U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																		
Kenya and Uganda	1938	Tons	—	—	—	—	504	504	44	548	—	—	—	—	1,525	1,525	151	1,676
	1939	,,	—	—	—	—	650	650	20	670	—	—	—	—	1,876	1,876	97	1,973
	1946	,,	—	—	—	—	1,789	1,789	209	1,998	—	—	—	—	6,260	6,260	1,364	7,624
	1947	,,	—	—	—	—	1,533	1,533	83	1,616	—	—	—	—	7,779	7,779	745	8,524
	1948	,,	—	—	—	—	1,314	1,314	78	1,392	—	—	—	—	5.643	5,643	741	6,384
	1949	,,	—	—	—	—	1,498	1,498	7	1,505	—	—	—	—	6,965	6,965	63	7,028
Tanganyika ..	1938	,,	—	—	—	—	3,991	3,991	155	4,146	—	—	—	—	24,688	24,688	1,011	25,699
	1939	,,	—	—	—	—	4,273	4,273	175	4,448	—	—	—	—	26,297	26,297	1,141	27,438
	1946	,,	—	—	—	—	3,137	3,137	290	3,427	—	—	—	—	24,726	24,726	2,280	27,006
	1947	,,	—	—	—	—	2,850	2,850	260	3,110	—	—	—	—	22,809	22,809	2,071	24,880
	1948	,,	—	—	—	—	2,652	2,652	285	2,937	—	—	—	—	23,238	23,238	2,447	25,685
	1949	,,	—	—	—	—	2,610	2,610	342	2,952	—	—	—	—	24,051	25,051	3,143	27,194
Totals	1938	,,	—	—	—	—	4,495	4,495	199	4,694	—	—	—	—	26,213	26,213	1,162	27,375
	1939	,,	—	—	—	—	4,923	4,923	195	5,118	—	—	—	—	28,173	28,173	1,238	29,411
	1946	,,	—	—	—	—	4,926	4,926	499	5,425	—	—	—	—	30,986	30,986	3,644	34,630
	1947	,,	—	—	—	—	4,383	4,383	343	4,726	—	—	—	—	30,588	30,588	2,816	33,404
	1948	,,	—	—	—	—	3,966	3,966	363	4,329	—	—	—	—	28,881	28,881	3,188	32,069
	1949	,,	—	—	—	—	4,108	4,108	349	4,457	—	—	—	—	31,016	31,016	3,206	34,222
West Indies																		
Leeward Isles ..	1938	Barrels	—	—	656	—	5,814	6,470	16,667	23,137	—	—	89	—	582	671	1,920	2,591
	1939	,,	—	—	1,029	—	3,440	4,469	32,564	37,033	—	—	136	—	313	449	3,877	4,326
	1946	,,	..	..	..	..	..	..	..	44,916	..	..	..	..	..	..	..	14,144
	1947	,,	..	..	..	..	..	..	..	54,645	..	..	..	..	..	..	..	21,441
	1948	,,	..	..	..	..	..	..	..	32,936	..	..	..	..	..	..	..	12,633
	1949	,,	..	..	..	..	..	..	..	38,561	..	..	..	..	..	..	..	15,356
Turks and Caicos Is.	1938	Bushels	—	—	287,669	531,789	—	819,458	160,987	980,445	—	—	5,052	11,092	—	16,144	2,307	18,451
	1939	,,	—	—	773,914	476,585	—	1,250,499	127,433	1,377,932	—	—	9,580	6,582	—	16,162	2,377	18,539
	1946	Tons	5	—	—	14,601	—	14,606	8,509	23,115	5	—	—	14,428	—	14,433	11,016	25,449
	1947	,,	—	—	441	12,984	51,778	65,203	5,132	70,335	—	—	348	13,152	25,889	39,389	10,475	49,864
	1948	,,	—	—	3,130	14,948	46,683	64,761	5,924	70,685	—	—	3,192	15,558	26,847	45,597	12,176	57,773
	1949	,,	—	—	2,661	20,839	24,691	48,191	4,527	52,718	—	—	4,117	26,605	24,691	55,413	9,359	64,772

TABLE 91: SALT—*(continued)*

			Quantity								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Atlantic and Indian Oceans																		
Aden	1938	Tons	—	207,685	—	—	32,351	240,036	3,038	243,074	—	139,142	—	—	24,263	163,405	1,231	164,636
	1939	,,	—	202,342	—	—	141,563	343,905	3,466	347,371	—	133,159	—	—	106,171	239,330	1,505	240,835
	1946	,,	—	57,902	—	—	12,420	70,322	13,865	84,187	—	64,373	—	—	11,345	75,718	10,507	86,225
	1947	,,	—	136,442	—	—	169.304	305,746	11,994	317,740	—	—	—	—	..	..	..	..
	1948	,,	—	229,024	—	—	42.228	271,252	7,398	278,650	—	—	—	—	..	..	..	..
	1949	,,	—	176,782	—	—	42,063	218,845	9,203	228,048	—	..	—	—	..	..	..	..
Bahamas	1938	Bushels	—	—	5,625	112,647	—	117,912	15,209	133,121	—	—	76	1,472	—	1,548	158	1,706
	1939	,,	—	—	13,000	164,000	—	177,000	503,000	680,000	—	—	190	2,292	—	2,482	3,766	6,248
	1946	,,	—	—	—	1,969,000	336,000	2,305,000	—	2,305,000	—	—	—	60,675	11,067	71,742	—	71,742
	1947	,,	—	—	203,000	1,568,000	262,000	2,033,000	—	2,033,000	—	—	6,224	50,392	9,345	65,961	—	65,961
	1948	,,	—	—	6,000	860,000	16,000	882,000	—	882,000	—	—	204	34,019	11,400	45,623	—	45,623
	1949	,,	—	—	—	1,236,000	283,000	1,519,000	10,000	1,529,000	—	—	—	50,237	17,500	67,737	405	68,142
Totals (1)	1938	Tons	—	207,685	188	4,023	32,351	244,247	3,581	247,828	—	139,142	76	1,472	24,263	164,953	1,389	166,342
	1939	,,	—	202,342	464	5,857	141,563	350,226	21,430	371,656	—	133,159	190	2,292	106,171	241,812	5,271	247,083
	1946	,,	—	57,902	—	70,321	24,420	152,643	13,865	166,508	—	64,373	—	60,675	22,412	147,460	10,507	157,967
	1947	,,	—	—	7,250	56,000	315,103	378,353	11,994	390,347	—	—	..	..	..	..	..	..
	1948	,,	—	—	214	30,714	271,826	302,754	7,398	310,152	—	—	..	..	..	..	..	..
	1949	,,	—	176,782	—	44,143	52,170	273,095	9,560	282,655	—	..	—	..	..	..	..	..
Grand Totals .. (Excluding Aden and Leeward Is.) (1)	1938	Tons	—	—	10,462	23,015	4,495	37,972	6,492	44,464	—	—	5,128	12,564	26,213	43,905	3,627	47,532
	1939	,,	—	—	28,104	22,878	4,923	55,905	22,710	78,615	—	—	9,770	8,874	28,173	46,817	7,381	54,198
	1946	,,	5	—	—	84,922	16,926	101,853	9,008	110,861	5	—	—	75,103	42,053	117,161	14,660	131,821
	1947	,,	—	—	7,691	68,984	65,518	142,193	5,475	147,668	—	—	6,572	63,544	65,822	135,938	13,291	149,229
	1948	,,	—	—	3,344	45,662	51,221	100,227	6,287	106,514	—	—	3,396	49,577	67,128	120,101	15,364	135,465
	1949	,,	—	—	2,661	64,982	38,906	106,549	5,233	111,782	—	—	4,117	76,842	73,207	154,166	12,970	167,136

N.B.—Other Exporters (See Introductory Note 5). Somaliland Protectorate ; Gold Coast ; Cyprus ; Grenada ; Nigeria.
(1) Bushels converted at the rate of 28 bushels = 1 ton.

TABLE 92: SILVER BULLION

		Quantity (Fine Troy Ounces)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Africa																	
Gold Coast	1938	42,206	—	—	—	—	42,206	—	42,206	3,679	—	—	—	—	3,679	—	3,679
	1939	46,403	—	—	—	—	46,403	—	46,403	4,181	—	—	—	—	4,181	—	4,181
	1946	54,526	—	—	—	—	54,526	—	54,526	9,867	—	—	—	—	9,867	—	9,867
	1947	41,250	—	—	—	—	41,250	—	41,250	8,160	—	—	—	—	8,160	—	8,160
	1948	45,553	—	—	—	—	45,553	—	45,553	8,464	—	—	—	—	8,464	—	8,464
	1949	40,051	—	—	—	—	40,051	—	40,051	7,697	—	—	—	—	7,697	—	7,697
Eastern																	
Federation of Malaya and Singapore (1)	1938	..	—	..	—	..	..	..	2,342,000	9,613	—	170,392	—	25,839	205,844	153	205,997
	1939	..	—	..	—	..	..	..	2,833,000	41,066	—	179,314	—	38,583	258,963	1,418	260,381
	1946	—	—	—	—	—	—	..	80,000	—	—	—	—	—	—	327	327
	1947	—	..	..	—	—	..	..	36,700	—	4,433	462	—	—	4,895	1,892	6,787
	1948	—	—	..	—	—	..	..	98,700	—	—	13,299	—	—	13,299	5,198	18,497
	1949	..	—	—	—	—	..	..	..	12,833	—	—	—	—	12,833	28,467	41,300
West Pacific																	
Fiji	1938	—	11,906	—	—	—	11,906	—	11,906	—	993	—	—	—	993	—	993
	1939	—	12,646	3,344	—	—	15,990	—	15,990	—	967	265	—	—	1,232	—	1,232
	1946	—	99	16,582	—	—	16,681	—	16,681	—	23	3,195	—	—	3,218	—	3,218
	1947	17	—	34,916	—	—	34,933	—	34,933	9	—	6,559	—	—	6,568	—	6,568
	1948	—	2	40,220	—	—	40,222	—	40,222	—	1	7,557	—	—	7,558	—	7,558
	1949	—	40	32,441	—	—	32,481	—	32,481	—	7	6,104	—	—	6,111	—	6,111
Totals	1938									13,292	993	170,392	—	25,839	210,516	153	210,669
	1939									45,247	967	179,579	—	38,583	264,376	1,418	265,794
	1946									9,867	23	3,195	—	—	13,085	327	13,412
	1947									8,169	4,433	7,021	—	—	19,623	1,892	21,515
	1948									8,464	1	20,856	—	—	29,321	5,198	34,519
	1949									20,530	7	6,104	—	—	26,641	28,467	55,108

N.B.—Other Exporters (See Introductory Note 5) : Tanganyika ; Northern Rhodesia ; Sierra Leone ; Bechuanaland ; Swaziland ; Sarawak ; Tanganyika also exported a small quantity of Lead and Lead-silver ore.

(1) Quantity figures for Malaya are estimates obtained from the Imperial Institute ; totals are rounded. Imports of Malaya were as follows :—

Year	*Quantity (estimated) (000 Fine Troy oz.)*	*Value (£)*
1938	1,762	154,944
1939	1,547	142,196
1946	130	144
1947	31	5,661
1948	—	—
1949	—	—

TABLE 93 : TIN METAL

(BLOCKS, INGOTS, BARS OR SLABS)

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Eastern																	
Federation of Malaya and Singapore(1)	1938	4,230	2,985	33,680	1,567	18,581	61,043	144	61,187	753,860	550,120	6,141,377	286,914	3,479,254	11,211,525	28,034	11,239,559
	1939	560	3,972	56,838	1,876	18,556	81,802	287	82,089	124,472	902,096	12,791,249	421,162	4,166,683	18,405,662	64,981	18,470,643
	1946	589	1,490	25	1,070	4,415	7,589	29	7,618	199,659	492,935	8,567	321,000	1,481,131	2,503,292	8,569	2,511,861
	1947	335	4,850	17,527	2,580	6.761	32,053	19	32,072	126,130	1,844,579	7,111,719	960,403	2,650,171	12,693,002	7,181	12,700,183
	1948	155	6,755	29,522	2,675	7,798	46,905	309	47,214	86,059	3,636,134	15,560,165	1,397,164	4,174,593	24,854,115	158,384	25,012,499
	1949	75	2,111	43,901	2,175	6,233	54,495	288	54,783	43,006	1,205,049	25,701,672	1,242,327	3,569,483	31,761,537	163,047	31,924,584

(1) Imports of Malaya were as follows :—

Year	*Quantity (Tons)*	*Value (£)*
1938	1	76
1939	1,001	235,947
1946	106	17,499
1947	180	52,460
1948	167	70,475
1949	30	14,209

TABLE 94: TIN ORES AND CONCENTRATES

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda.. ..	1938	130	—	—	—	381	511	—	511	15,717	—	—	—	54,834	70,551	—	70,551
	1939	84	—	—	—	327	411	80	491	13,049	—	—	—	46,134	59,183	11,229	70,412
	1946	273	23	—	—	—	296	—	296	49,110	4,145	—	—	—	53,255	—	53,255
	1947	189	—	—	—	—	189	—	189	40,151	—	—	—	—	40,151	—	40,151
	1948	283	—	—	—	—	283	—	283	103,231	—	—	—	—	103,231	—	103,231
	1949	185	—	—	—	—	185	—	185	75,338	—	—	—	—	75,338	—	75,338
Tanganyika	1938	—	—	—	—	—	—	368	368	—	—	—	—	—	—	50,447	50,447
	1939	—	—	—	—	—	—	311	311	—	—	—	—	—	—	50,605	50,605
	1946	181	—	—	—	—	181	—	181	47,271	—	—	—	—	47,271	—	47,271
	1947	129	—	—	—	—	129	—	129	38,029	—	—	—	—	38,029	—	38,029
	1948	133	—	—	—	—	133	—	133	51,973	—	—	—	—	51,973	—	51,973
	1949	140	—	—	—	—	140	—	140	58,470	—	—	—	—	58,470	—	58,470
Totals	1938	130	—	—	—	381	511	368	879	15,717	—	—	—	54,834	70,551	50,447	120,998
	1939	84	—	—	—	327	411	391	802	13,049	—	—	—	46,134	59,183	61,834	121,017
	1946	454	23	—	—	—	477	—	477	96,381	4,145	—	—	—	100,526	—	100,526
	1947	318	—	—	—	—	318	—	318	78,180	—	—	—	—	78,180	—	78,180
	1948	416	—	—	—	—	416	—	416	155,204	—	—	—	—	155,204	—	155,204
	1949	325	—	—	—	—	325	—	325	133,808	—	—	—	—	133,808	—	133,808
West Africa																	
Nigeria	1938	10,477	—	—	—	—	10,477	9	10,486	1,433,899	—	—	—	—	1,433,899	1,258	1,435,157
	1939	14,554	—	—	—	—	14,554	—	14,554	2,368,324	—	—	—	—	2,368,324	—	2,368,324
	1946	13,929	—	—	—	—	13,929	—	13,929	2,860,998	—	—	—	—	2,860,998	—	2,860,998
	1947	14,090	—	—	—	—	14,090	—	14,090	4,091,149	—	—	—	—	4,091,149	—	4,091,149
	1948	12,169	—	—	—	—	12,169	—	12,169	4,241,393	—	—	—	—	4,241,393	—	4,241,393
	1949	12,676	—	—	—	—	12,676	—	12,676	4,684,789	—	—	—	—	4,684,789	—	4,684,789
South Africa																	
High Commission Territories Swaziland	1938	..	..	..	..	..	..	..	174	..	..	..	..	..	..	..	33,129
	1939	..	..	..	..	..	..	..	163	..	..	..	..	..	..	..	36,528
	1946	..	..	..	..	..	..	..	37	..	..	..	..	..	..	..	12,653
	1947	..	..	..	..	..	..	..	23	..	..	..	..	..	..	..	8,828
	1948	..	..	..	..	..	..	..	20	..	..	..	..	..	..	..	11,017
	1949	..	..	..	..	..	..	..	32	..	..	..	..	..	..	..	17,528
Grand Totals (Excluding Swaziland)	1938	10,607	—	—	—	381	10,988	377	11,365	1,449,616	—	—	—	54,834	1,504,450	51,705	1,556,155
	1939	14,638	—	—	—	327	14,965	391	15,356	2,381,373	—	—	—	46,134	2,427,507	61,834	2,489,341
	1946	14,383	23	—	—	—	14,406	—	14,406	2,957,379	4,145	—	—	—	2,961,524	—	2,961,524
	1947	14,408	—	—	—	—	14,408	—	14,408	4,169,329	—	—	—	—	4,169,329	—	4,169,329
	1948	12,585	—	—	—	—	12,585	—	12,585	4,396,597	—	—	—	—	4,396,597	—	4,396,597
	1949	13,001	—	—	—	—	13,001	—	13,001	4,818,597	—	—	—	—	4,818,597	—	4,818,597

N.B.—Malaya had a substantial entrepôt trade in this commodity; its imports and exports were as follows:—

Imports			*Exports*		
Year	*Quantity ('000 tons)*	*Value (£'000)*	*Year*	*Quantity ('000 tons)*	*Value (£'000)*
1938	27·8	3,506·7	1938	2·8	387·8
1939	41·6	6,577·3	1939	0·9	134·8
1946	0·7	162·6	1946	0·3	66·7
1947	4·6	1,325·9	1947	—	—
1948	4·8	1,916·8	1948	—	10·6
1949	9·1	2,620·9	1949	—	—

TABLE 95: WOLFRAM ORE

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda (1) ..	1946	75	—	9	—	—	84	—	84	17,845	—	2,188	—	—	20,033	—	20,033
	1947	90	—	26	—	15	131	—	131	32,000	—	8,379	—	3,574	43,953	—	43,953
	1948(3)	51	—	—	—	53	104	—	104	21,527	—	93	—	21,773	43,393	—	43,393
	1949	108	—	—	—	31	139	—	139	31,804	—	—	—	10,230	42,034	—	42,034
Tanganyika(1)	1949	14	—	—	—	15	29	—	29	4,934	—	—	—	5,273	10,207	—	10,207
Eastern																	
Malaya (2)	1938	273	—	—	—	96	369	4	373	38,917	—	—	—	15,122	54,039	863	54,902
	1939	280	—	24	—	130	434	—	434	40,917	—	3,616	—	21,917	66,450	—	66,450
	1946	76	—	—	—	7	83	—	83	13,524	—	—	—	1,054	14,578	—	14,578
	1947	287	—	—	—	87	374	—	374	107,663	—	—	—	34,718	142,381	—	142,381
	1948	120	—	—	—	38	158	—	158	38,281	—	—	—	15,243	53,524	—	53,524
	1949	55	—	—	—	32	87	—	87	17,950	—	—	—	12,013	29,963	—	29,963
Totals	1938	273	—	—	—	96	369	4	373	38,917	—	—	—	15,122	54,039	863	54,902
	1939	280	—	24	—	130	434	—	434	40,917	—	3,616	—	21,917	66,450	—	66,450
	1946	151	—	9	—	7	167	—	167	31,369	—	2,188	—	1,054	34,611	—	34,611
	1947	377	—	26	—	102	505	—	505	139,663	—	8,379	—	38,292	186,334	—	186,334
	1948	171	—	—	—	91	262	—	262	59,808	—	93	—	37,016	96,917	—	96,917
	1949	177	—	—	—	78	255	—	255	54,688	—	—	—	27,516	82,204	—	82,204

N.B.—Small exports from Nigeria have been excluded.

(1) There were no exports from Kenya and Uganda in 1938 and 1939, and from Tanganyika in 1938, 1939, 1946, 1947 and 1948.

(2) The imports of Malaya were as follows :—

Year	*Quantity (Tons)*	*Value (£)*
1938	45	5,068
1939	76	10,436
1946	—	—
1947	—	—
1948	56	22,423
1949	15	5,235

(3) Ferro-alloy ores, including Wolfram.

I. MINERALS

TABLE 96 : OTHER MINERALS (1)

Colony, etc.	Year	Quantity (Tons) U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	Value (£) U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
Asphalt (Cement)																	
Trinidad and Tobago ..	1938	10	10,554	7,200	36	2,270	20,070	4,507	24,577	30	31,661	19,600	108	6,834	58,233	13,469	71,702
	1939	—	9,006	4,982	42	1,827	15,857	6,923	22,780	—	27,018	14,991	144	5,490	47,643	21,244	68,887
	1946	—	12,154	772	—	5,999	18,925	4,316	23,241	—	109,604	5,409	—	42,456	157,469	47,914	205,383
	1947	—	14,549	543	—	5,859	20,951	3,344	24,295	—	104,866	4,062	—	45,423	154,351	27,148	181,499
	1948	—	14,144	636	—	31,498	46,278	3,091	49,369	—	108,486	4,886	—	228,167	341,539	27,885	369,424
	1949	57	6,658	543	—	17,101	24,359	5,034	29,393	731	73,481	4,074	—	199,577	277,863	74,024	351,887
Asphalt (Crude)																	
Trinidad and Tobago ..	1938	1	—	7,400	—	—	7,401	—	7,401	1	—	7,300	—	—	7,301	—	7,301
	1939	—	—	6,300	—	—	6,300	152	6,452	—	—	6,300	—	—	6,300	351	6,651
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	9	—	32	41	—	41	—	—	64	—	120	184	—	184
	1948	—	—	16	—	—	16	—	16	—	—	21	—	—	21	—	21
	1949	—	—	—	—	—	—	27	27	—	—	—	—	—	—	46	46
Asphalt (Dried)																	
Trinidad and Tobago ..	1938	30,055	4,408	2,633	137	14,629	51,862	387	52,249	90,165	13,124	7,899	411	43,878	155,477	1,161	156,638
	1939	31,508	1,951	9,450	162	15,901	58,972	297	59,269	85,524	5,853	28,312	487	47,263	167,439	891	168,330
	1946	18,560	947	3,778	140	3,138	26,563	—	26,563	113,300	5,398	19,292	878	18,055	156,923	—	156,923
	1947	22,217	1,405	1,796	95	6,851	32,364	—	32,364	128,259	8,000	9,076	606	41,681	187,622	—	187,622
	1948	29,619	1,021	3,404	192	6,617	40,853	1,135	41,988	171,732	6,719	15,171	1,283	39,692	234,597	9,704	244,301
	1949	33,469	876	4,227	117	8,893	47,582	380	47,962	196,417	5,288	18,344	830	52,120	272,999	2,372	275,371
Coal																	
Nigeria(2)	1938	—	—	—	—	—	—	52,468	52,468	—	—	—	—	—	—	45,868	45,868
	1939	—	—	—	—	—	—	49,588	49,588	—	—	—	—	—	—	42,323	42,323
	1946	1	—	—	—	60,265	60,266	128,116	188,382	1	—	—	—	79,759	79,760	168,686	248,446
	1947	1	—	—	—	48,694	48,695	107,941	156,636	4	—	—	—	70,344	70,348	153,207	223,555
	1948	531	—	—	—	15,528	16,059	81,247	97,306	1,045	—	—	—	25,968	27,013	140,929	167,942
	1949	28	—	—	—	1,208	1,236	62,096	63,332	116	—	—	—	2,313	2,429	116,419	118,848
Cobalt Alloy																	
Northern Rhodesia ..	1938	105	—	—	—	3,501	3,606	—	3,606	13,875	—	—	—	461,510	475,385	—	475,385
	1939	526	—	—	425	2,497	3,448	—	3,448	71,442	—	—	57,784	338,091	467,317	—	467,317
	1946	584	6	—	133	583	1,306	—	1,306	109,805	1,163	9	25,874	112,877	249,728	—	249,728
	1947	724	3	—	—	183	910	—	910	132,055	565	—	—	33,025	165,645	—	165,645
	1948	1,060	—	—	—	—	1,060	—	1,060	193,879	—	—	—	—	193,879	—	193,879
	1949	1,386	—	—	27	—	1,413	—	1,413	285,695	—	—	4,871	—	290,566	—	290,566
Columbite																	
Nigeria	1938	..	..	..	..	..	..	..	324	..	..	..	..	..	..	..	..
	1939	..	..	..	..	..	..	..	231	..	..	..	..	..	..	..	6,000
	1946	80	—	1,358	—	—	1,438	—	1,438	12,947	—	219,800	—	—	232,747	—	232,747
	1947	269	—	921	—	100	1,290	—	1,290	43,304	—	151,661	—	16,632	211,597	—	211,597
	1948	428	—	811	—	—	1,239	—	1,239	84,125	—	146,480	—	—	230,605	—	230,605
	1949	349	—	596	—	—	945	—	945	80,505	—	143,564	—	—	224,069	—	224,069
Corundum																	
Nyasaland Protectorate ..	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1939	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1946	25	—	387	—	—	412	—	412	397	—	5,780	—	—	6,177	—	6,177
	1947	—	—	17	—	—	17	—	17	—	—	270	—	—	270	—	270
	1948	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1949	—	—	79	—	—	79	—	79	—	—	1,875	—	—	1,875	—	1,875

Gypsum (Crude) Cyprus	1938	3,832	—	—	—	214	4,046	2,000	6,046	958	—	—	—	30	988	500	1,488
	1939	—	—	—	—	1,031	1,031	1,500	2,531	—	—	—	—	280	280	300	580
	1946	—	—	—	—	10,850	10,850	—	10,850	—	—	—	—	14,642	14,642	—	14,642
	1947	—	—	—	—	5,800	5,800	—	5,800	—	—	—	—	7,400	7,400	—	7,400
	1948	—	—	—	—	13,992	13,992	—	13,992	—	—	—	—	13,212	13,212	—	13,212
	1949	2	—	—	—	15,949	15,951	1,000	16,951	2	—	—	—	11,829	11,831	700	12,531
Gypsum (Calcined) Cyprus	1938	—	—	—	—	3,529	3,529	—	3,529	—	—	—	—	2,258	2,258	—	2,258
	1939	—	20	—	—	2,421	2,441	—	2,441	—	20	—	—	1,601	1,621	—	1,621
	1946	1	—	—	—	3,641	3,642	—	3,642	5	—	—	—	15,311	15,316	—	15,316
	1947	—	—	—	—	1,601	1,601	—	1,601	—	—	—	—	5,637	5,637	—	5,637
	1948	3	230	—	—	4,096	4,329	1	4,330	11	653	—	—	13,435	14,099	3	14,102
	1949	—	1,895	—	—	5,034	6,929	101	7,030	—	5,736	—	—	16,560	22,296	353	22,649
Iron, Pig Federation of Malaya and Singapore (3)	1938	—	—	—	—	34	34	—	34	—	—	—	—	230	230	—	230
	1939	—	—	—	—	66	66	—	66	—	—	—	—	422	422	—	422
	1946	—	—	—	—	—	—	2	2	—	—	—	—	—	—	47	47
	1947	—	—	—	—	222	222	30	252	—	—	—	—	2,036	2,036	525	2,561
	1948	—	—	—	—	2,965	2,965	195	3,160	—	—	—	—	9,329	9,329	3,081	12,410
	1949	—	—	—	—	115	115	10	125	—	—	—	—	2,812	2,812	118	2,930
Kyanite Kenya and Uganda (4) ..	1948	1,440	22	7,921	—	4,376	13,759	1	13,760	5,758	87	32,547	—	20,971	59,363	5	59,368
	1949	4,955	—	8,037	—	5,915	18,907	—	18,907	28,684	—	45,362	—	33,980	108,026	—	108,026
Mica Sheets Tanganyika (5)	1938	3	—	—	—	19	22	—	22	1,057	—	—	—	8,379	9,436	—	9,436
	1939	12	—	—	—	19	31	—	31	7,285	—	—	—	8,166	15,451	—	15,451
	1946	72	—	—	—	—	72	—	72	53,805	71	—	—	—	53,876	19	53,895
	1947	70	—	—	—	—	70	—	70	54,560	—	—	—	2	54,562	70	54,632
	1948	80	—	—	—	—	80	—	80	61,083	—	526	—	—	61,609	118	61,727
	1949	61	—	—	—	—	61	—	61	43,514	—	—	—	—	43,514	—	43,514
Potash Nigeria	1938	7	—	—	—	3	10	170	180	151	—	—	—	50	201	3,130	3,331
	1939	1	—	—	—	1	2	139	141	2	—	—	—	11	13	2,516	2,529
	1946	—	—	—	—	46	46	131	177	—	—	—	—	107	107	3,253	3,360
	1947	—	—	—	—	22	22	96	118	—	—	—	—	86	86	4,037	4,123
	1948	—	—	—	—	13	13	137	150	1	—	—	—	123	124	4,935	5,059
	1949	—	—	—	—	8	8	211	219	—	—	—	—	136	136	5,510	5,646
Pyrites Cyprus	1938	29,901	—	—	—	485,402	515,303	—	515,303	25,238	—	—	—	463,355	488,593	—	488,593
	1939	28,850	—	—	—	377,218	406,068	—	406,068	29,024	—	—	—	386,338	415,362	—	415,362
	1946	1	—	—	—	256,202	256,203	—	256,203	11	—	—	—	372,395	372,406	—	372,406
	1947	—	—	—	—	352,946	352,946	—	352,946	—	—	—	—	557,776	557,776	—	557,776
	1948	2	—	—	—	369,923	369,925	—	369,925	8	—	—	—	499,460	499,468	—	499,468
	1949	3,000	—	—	—	476,588	479,588	—	479,588	5,250	—	—	—	1,135,452	1,140,702	—	1,140,702
Scheelite Federation of Malaya and Singapore (6)	1938	131	—	150	—	1	282	—	282	38,568	—	70,325	—	154	109,047	—	109,047
	1939	152	—	35	30	—	217	—	217	44,078	—	9,687	10,450	—	64,215	—	64,215
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	8	—	—	—	—	8	—	8	2,415	—	—	—	—	2,415	—	2,415
	1948	36	—	—	—	—	36	—	36	15,479	—	—	—	—	15,479	—	15,479
	1949	26	—	—	—	3	29	—	29	13,128	—	—	—	1,526	14,654	—	14,654

TABLE 96: OTHER MINERALS (1)—(*continued*).

		Quantity (Tons)								Value (£)							
Colony, etc.	Year	U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	U.K.	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Sodium Carbonate																	
Kenya and Uganda ..	1938	—	22,386	—	—	6,721	29,107	139	29,246	1	101,509	—	—	30,456	131,966	877	132,843
	1939	—	29,530	—	—	10,877	40,407	178	40,585	—	134,534	—	—	48,897	183,431	1,096	184,527
	1946	—	63,950	—	—	14,069	780,019	404	78,423	—	351,378	—	—	72,521	423,899	2,435	426,334
	1947	—	74,727	—	—	20,111	94,838	3,822	98,660	1	451,041	—	—	101,356	552,398	19,413	571,811
	1948	—	89,386	—	—	15,270	104,656	2,986	107,642	3	856,207	—	—	85,024	941,234	16,344	957,578
	1949	1	48,791	—	—	15,797	64,589	3,684	68,273	5	347,994	—	—	88,521	436,520	18,865	455,385
Vanadic Oxide (Fused)																	
Northern Rhodesia	1938	241	—	—	—	477	718	—	718	94,446	—	—	—	186,864	281,310	—	281,310
	1939	455	—	—	—	276	731	—	731	178,429	—	—	—	108,215	286,644	—	286,644
	1946	—	2	—	—	20	22	—	22	—	972	—	—	10,812	11,784	—	11,784
	1947	46	—	—	—	100	146	—	146	24,094	183	—	—	54,328	78,605	—	78,605
	1948	30	4	—	—	125	159	—	159	17,120	2,286	—	—	74,263	93,669	—	93,669
	1949	110	1	—	—	20	131	—	131	62,346	318	—	—	11,950	74,614	—	74,614
Yellow Ore																	
Cyprus	1938	—	—	—	—	1,151	1,151	—	1,151	1	—	—	—	9,604	9,605	—	9,605
	1939	—	—	—	—	4,115	4,115	—	4,115	—	—	—	—	61,963	61,963	—	61,963
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	115	—	—	—	—	115	—	115	455	—	—	—	—	455	—	455
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Zinc Ingots																	
Northern Rhodesia ..	1938	3,364	2,604	1	—	714	6,683	—	6,683	48,771	32,600	8	—	9,562	90,941	—	90,941
	1939	9,144	4,099	22	—	443	13,708	—	13,708	128,798	53,315	301	—	6,034	188,448	—	188,448
	1946	2,190	13,805	—	—	1,221	17,216	1	17,217	104,353	561,424	—	—	52,277	718,054	45	718,099
	1947	6,100	12,377	—	—	700	19,177	—	19,177	347,715	684,476	—	—	44,403	1,076,594	—	1,076,594
	1948	4,450	18,159	—	—	644	23,253	—	23,253	265,762	1,203,320	—	—	53,253	1,522,335	—	1,522,335
	1949	1,077	16,430	—	—	5,197	22,704	—	22,704	113,863	1,342,125	—	—	475,291	1,931,279	—	1,931,279
Zinc Ore																	
Cyprus (7)	1938	—	—	—	—	90	90	—	90	4,489	—	—	—	32,470	36,959	—	36,959
	1939	1	—	—	—	3	4	—	4	21,128	—	—	—	41,488	62,616	—	62,616
Northern Rhodesia (8) ..	1949	5,275	—	—	—	—	5,275	—	5,275	58,026	—	—	—	—	58,026	—	58,026

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(1) In addition to the items enumerated in Tables 79 to 96, there were small exports (See Introductory Note 5) of Amang Ore (Ilmanite) (Malaya) ; Antimony (Sarawak) ; Barytes (Swaziland, Antigua and Sarawak) ; Guano (Somaliland Protectorate) ; Guano Phosphate (Seychelles) ; Magnesite (Cyprus) ; Manjak (Barbados) ; Mercury (Sarawak) ; Platinum (Sierra Leone) ; Pumice Stone (Cyprus) ; Sulphur (Malaya). In 1949, Jamaica exported 9,600 tons of Gypsum (value £3,787).

(2) Excluding ships' stores in 1938, 1939 and 1949. In 1938 exports of bunkers were 14,272 tons ; in 1949 bunkers (including supplies to river and coastal shipping) amounted to 29,949 tons. Quantity figures not available for 1939 and value figures not available for any of these years.

(3) Imports of Malaya, in 1948 and 1949, were 632 tons (valued at £8,708), and 726 tons (valued at £11,637).

(4) There were no exports in 1938, 1939, 1946 and 1947.

(5) Small exports from Kenya, Uganda and Northern Rhodesia have been excluded (See Introductory Note 5) ; Tanganyika, also exported small quantities of Mica dust.

(6) No imports.

(7) Previously included in "Metal and Metal Manufactures, not separately enumerated."

(8) Estimated.

TABLE 97: OTHER MINERALS (UNSPECIFIED):

N.B.—This Table relates to items, additional for the territories concerned to those specified in Tables 79 to 96.

Colony, etc.	Year	Quantity (Tons)								Value (£)							
		U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
East and Central Africa																	
Kenya and Uganda (1) ..	1938	8	—	—	—	2	10	—	10	874	—	—	—	253	1,127	—	1,127
	1939	6	—	—	—	—	6	—	6	626	1	—	—	1	628	—	628
	1946	1,075	1	948	—	1	2,025	—	2,025	4,698	11	3,406	—	4	8,119	—	8,119
	1947	1,138	100	8,130	—	4,545	13,913	—	13,913	5,069	375	30,596	—	17,820	53,860	3	53,863
	1948	65	—	—	—	—	65	—	65	4,463	—	—	—	—	4,463	—	4,463
	1949	1,064	81	64	—	163	1,372	6	1,378	20,450	2,659	1,141	—	3,794	28,044	137	28,181
West Africa																	
Nigeria (2)	1938	91	—	294	—	50	435	—	435	11,431	—	27,913	—	4,383	43,727	—	43,727
	1939	429	—	—	—	20	449	—	449	55,538	—	—	—	1,489	57,027	—	57,027
	1946	1	—	—	—	—	1	—	1	50	—	—	—	—	50	—	50
	1947	4	—	2	—	—	6	—	6	916	—	1,848	—	—	2,764	—	2,764
	1948	277	—	2	—	..	..	—	..	11,648	—	2,168	—	10,729	24,545	—	24,545
	1949	147	—	..	—	117	264	5	269	5,223	—	5	—	12,421	17,649	461	18,110
Sierra Leone (3)	1938	143	—	354	—	1	498	—	498	289	—	812	—	2	1,103	—	1,103
	1939	—	—	..	—	..	..	—	..	—	—	11,433	—	253	11,686	—	11,686
	1946	1,611	—	29,700	—	—	31,311	—	31,311	8,014	—	132,792	—	—	140,806	—	140,806
	1947	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	14	—	—	—	—	14	—	14	92	—	—	—	—	92	—	92
	1949	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gold Coast (4)	1938	19	—	—	—	—	19	..	..	130	—	—	—	—	130	200	330
	1939	16	—	—	—	—	16	—	16	115	—	—	—	—	115	—	115
	1946	1	—	—	—	—	1	—	1	203	—	—	—	—	203	—	203
	1947	12	—	—	—	—	12	—	12	6,132	—	20	—	—	6,152	—	6,152
	1948	49	—	—	—	—	49	—	49	14,379	—	—	—	—	14,379	—	14,379
	1949	60	—	—	—	—	60	—	60	6,249	—	—	—	—	6,249	—	6,249
Eastern																	
Federation of Malaya and Singapore (5)	1938	—	10	—	—	55,751	55,761	—	55,761	—	13	—	—	41,303	41,316	—	41,316
	1939	4	—	—	—	84,387	84,391	—	84,391	41	—	—	—	58,491	58,532	—	58,532
	1946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	204	24	—	—	10	238	—	238	4,255	1,976	—	—	96	6,327	—	6,327
	1948	128	5	580	—	164	877	—	877	1,853	28	12,020	—	3,028	16,929	—	16,929
	1949	87	16	—	—	46	149	—	149	2,429	46	—	—	376	2,851	—	2,851

N.B.—Other exporters (See Introductory Note 5) : Tanganyika ; Gold Coast.

(1) Non-ferrous metalliferous ores other than gold and tin (1938-39 ; 1946-47) : other than kyanite and tin (1948) : other than gold, tin, wolfram and kyanite (1949).
(2) Metallic ores other than tin (1938-39) : other than columbite, tin and wolfram (1946-47) : other than columbite, iron, tin and wolfram (1948-49).
(3) Metallic ores other than iron and platinum (1938-39, 1946) : other than chrome, iron and platinum (1947-49).
(4) Metallic ores other than manganese (1938-39) : other than bauxite and manganese (1947-49).
(5) Non-ferrous metalliferous ores other than manganese, tin, bauxite, amang, scheelite and wolfram (1938-39, 1947-49). The imports of Malaya were as follows :—

Year	Quantity (Tons)	Value (£)
1938	41	293
1939	96	618
1946	..	..
1947	5	317
1948	—	13
1949	1	85

TABLE 98: ESSENTIAL OILS (LIME)

Colony, etc.	Year	Unit	(Quantity)								Value (£)							
			U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports	U.K.	Other Parts of Sterling Area	U.S.A., etc., and the Philippines	Canada and Newfoundland	Other Countries	Total excluding Inter-Colonial Trade	Inter-Colonial Trade	Total Domestic Exports
West Africa																		
Gold Coast ..	1938	Galls.	808	—	—	—	—	808	—	808	3,518	—	—	—	—	3,518	—	3,518
	1939	,,	2,549	—	—	—	—	2,549	—	2,549	12,246	—	—	—	—	12,246	—	12,246
	1946	,,	720	—	—	—	—	720	—	720	7,134	—	—	—	—	7,134	—	7,134
	1947	,,	174	—	—	—	—	174	—	174	1,263	—	—	—	—	1,263	—	1,263
	1948	,,	—	—	—	—	50	50	—	50	—	—	—	—	501	501	—	501
	1949	,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Indies																		
British Guiana ..	1938	Galls.	368	—	147	—	—	515	24	539	2,512	—	1,491	—	—	4,003	197	4,200
	1939	,,	100	—	432	56	—	588	—	588	513	—	1,907	257	—	2,677	—	2,677
	1946	,,	144	—	712	—	—	856	120	976	1,600	—	7,110	—	—	8,710	1,836	10,546
	1947	,,	49	—	152	—	—	201	120	321	396	—	1,291	—	—	1,687	1,056	2,743
	1948	,,	851	—	393	—	—	1,244	—	1,244	6,658	—	3,049	—	—	9,707	—	9,707
	1949	,,	888	—	—	—	—	888	—	888	8,216	—	—	—	—	8,216	—	8,216
Jamaica	1938	Galls.	82	143	1,120	24	—	1,369	—	1,369	486	914	5,922	132	—	7,454	—	7,454
	1939	lbs.	4,094	750	11,446	750	130	17,170	—	17,170	1,964	568	5,511	379	45	8,467	—	8,467
	1946	,,	7,000	2,300	9,250	3,050	—	21,600	35	21,635	8,700	3,602	13,827	4,574	—	30,703	49	30,752
	1947	,,	3,950	925	5,400	2,000	—	12,275	—	12,275	3,272	999	5,725	2,000	—	11,996	—	11,996
	1948	,,	10,250	225	16,500	1,200	—	28,175	—	28,175	9,749	253	16,400	1,218	—	27,620	—	27,620
	1949	,,	25,489	600	19,810	6,062	—	51,961	—	51,961	33,485	597	23,556	6,361	—	63,999	—	63,999
Dominica ..	1938(2)	lbs.	6,470	490	6,151	533	2,783	16,427	311	16,738	4,252	306	4,536	755	1,798	11,647	260	11,907
	1939(2)	,,	2,663	18	15,179	564	18	18,442	312	18,754	1,380	27	8,840	370	9	10,626	304	10,930
	1946	,,	4,421	—	14,582	1,863	—	20,866	10,012	30,878	4,338	—	16,786	2,538	—	23,662	14,423	38,085
	1947	,,	15,616	—	4,023	1,272	565	21,476	6,915	28,391	18,441	—	4,766	1,467	674	25,348	7,735	33,083
	1948	,,	14,196	—	7,305	630	—	22,131	2,765	24,896	13,762	—	6,167	618	—	20,547	2,743	23,290
	1949	,,	2,404	—	5,525	2,096	224	10,249	8,310	18,559	2,989	—	6,190	2,973	230	12,382	8,400	20,782
Grenada ..	1938	lbs.	10,220	—	630	—	1,995	12,845	133	12,978	8,410	—	396	—	866	9,672	63	9,735
	1939	,,	4,710	—	1,785	—	—	6,495	105	6,600	3,340	—	950	—	—	4,290	42	4,332
	1946	,,	2,880	—	5,800	—	—	8,680	—	8,680	4,365	—	6,437	—	—	10,802	—	10,802
	1947	,,	7,127	560	—	—	—	7,687	—	7,687	9,417	714	—	—	—	10,131	—	10,131
	1948	,,	6,987	—	3,641	—	—	10,628	—	10,628	7,272	—	2,804	—	—	10,076	—	10,076
	1949	,,	2,365	—	2,995	—	—	5,360	—	5,360	2,603	—	3,363	—	—	5,966	—	5,966
St. Lucia ..	1938	Galls.	123	—	561	500	24	1,208	—	1,208	770	—	4,693	3,727	340	9,530	—	9,530
	1939	,,	342	—	1,074	133	—	1,549	3	1,552	1,411	—	4,826	684	—	6,921	12	6,933
	1946	,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1947	,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1948	lbs.	..	..	..	..	..	..	..	3,147	..	..	..	..	..	..	..	2,686
	1949	,,	—	—	249	—	—	249	—	249	—	—	343	—	—	343	—	343

TABLE 98: ESSENTIAL OILS (LIME)—(*continued*).

			(Quantity)								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philip-pines*	*Canada and New-foundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
West Indies—(*contd.*)																		
Trinidad and Tobago	1938	lbs.	9,416	336	22,649	540	1,225	34,166	175	34,341	6,779	298	17,821	405	831	26,134	146	26,280
	1939	,,	3,675	525	41,024	3,325	—	48,549	—	48,549	2,318	411	20,966	1,989	—	25,684	—	25,684
	1946	,,	4,371	816	10,446	1,224	—	16,857	35	16,892	6,647	1,416	13,214	1,790	—	23,067	58	23,125
	1947	,,	6,013	1,540	3,905	1,020	220	12,698	—	12,698	7,081	1,767	4,136	1,148	229	14,361	—	14,361
	1948	,,	4,122	3,628	21,052	2,550	245	31,597	—	31,597	3,624	3,642	21,759	2,492	208	31,725	—	31,725
	1949	,,	1,166	476	16,446	697	448	19,233	—	19,233	1,213	606	25,407	1,028	742	28,996	—	28,996
Totals (1)	1938	lbs.	31,148	2,084	45,516	5,684	6,214	90,646	830	91,476	23,209	1,518	34,859	5,019	3,835	68,440	666	69,106
	1939	,,	19,032	1,293	82,687	6,302	148	109,462	443	109,905	10,926	1,006	43,000	3,679	54	58,665	358	59,023
	1946	,,	19,939	3,116	46,344	6,137	—	75,536	11,138	86,674	25,650	5,018	57,374	8,902	—	96,944	16,366	113,310
	1947	,,	33,137	3,025	14,666	4,292	785	55,905	7,971	63,876	38,607	3,480	15,918	4,615	903	63,523	8,791	72,314
	1948	,,	..	..	..	..	..	..	..	109,390	..	..	..	..	..	..	..	105,104
	1949	,,	39,238	1,076	45,025	8,855	672	94,866	8,310	103,176	48,506	1,203	58,859	10,362	972	119,902	8,400	128,302
Grand Totals (1)	1938	lbs.	38,258	2,084	45,516	5,684	6,214	97,756	830	98,586	26,727	1,518	34,859	5,019	3,835	71,958	666	72,624
	1939	,,	41,463	1,293	82,687	6,302	148	131,893	443	132,336	23,172	1,006	43,000	3,679	54	70,911	358	71,269
	1946	,,	26,275	3,116	46,344	6,137	—	81,872	11,138	93,010	32,784	5,018	57,374	8,902	—	104,078	16,366	120,444
	1947	,,	34,668	3,025	14,666	4,292	785	57,436	7,971	65,407	39,870	3,480	15,918	4,615	903	64,786	8,791	73,577
	1948	,,	..	..	..	..	..	..	..	109,830	..	..	..	..	..	..	..	105,605
	1949	,,	39,238	1,076	45,025	8,855	672	94,866	8,310	103,176	48,506	1,203	58,859	10,362	972	119,902	8,400	128,302

N.B.—Small exports from Nigeria and Leeward Islands have been excluded (See Introductory Note 5).

(1) Gallons converted to lbs. at 8·8 lbs. = 1 gallon.

(2) In these years Dominica was included in the Leeward Islands and no destination breakdown by island is available. These figures, therefore, include those for the rest of the Presidencies, the exports of which were : (1938 : Quantity 1,779 lbs.—value £2,070) (1939 : Quantity 3,262 lbs.—value £2,894).

TABLE 99: ESSENTIAL OILS (OTHER)

			(Quantity)								Value (£)							
Colony, etc.	*Year*	*Unit*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
Bay Oil Dominica	1938	lbs.	4,294	—	22,673	—	1,050	28,017	649	28,666	608	—	3,091	—	145	3,844	92	3,936
	1939	,,	2,532	—	24,492	—	1,785	28,809	815	29,624	303	—	2,964	—	222	3,489	101	3,590
	1946	,,	3,026	—	18,638	600	260	22,524	1,675	24,199	716	—	3,341	122	16	4,195	337	4,532
	1947	,,	4,896	—	15,587	500	28	21,011	3,209	24,220	1,061	—	3,133	110	7	4,311	685	4,996
	1948	,,	10,860	—	21,302	—	—	32,162	2,512	34,674	2,180	—	4,188	—	—	6,368	517	6,885
	1949	,,	7,686	—	24,289	—	826	32,801	3,782	36,583	1,440	—	4,655	—	189	6,284	602	6,886
Cedarwood Oil Kenya	1938	lbs.	10,716	—	—	—	200	10,916	—	10,916	409	—	—	—	15	424	—	424
	1939	,,	21,700	—	—	—	1,100	22,800	—	22,800	966	—	—	—	49	1,015	—	1,015
	1946	,,	26,643	2,667	4,715	—	2,687	36,712	—	36,712	3,744	388	1,006	—	450	5,588	—	5,588
	1947	,,	18,633	8,283	17,993	—	438	45,347	12	45,359	2,734	1,265	2,670	—	79	6,748	1	6,749
	1948	,,	29,607	2,212	—	—	—	31,819	400	32,219	3,612	279	—	—	—	3,891	45	3,936
	1949	,,	29,132	2,963	—	—	1,356	33,451	—	33,451	3,641	351	—	—	163	4,155	—	4,155
Cinnamon Leaf Oil Seychelles ..	1938	lbs.	14,586	463	126,385	—	—	141,434	—	141,434	1,539	52	11,849	—	—	13,440	—	13,440
	1939	,,	2,319	—	146,044	—	—	148,363	—	148,363	197	—	13,682	—	—	13,879	—	13,879
	1946	,,	..	..	..	..	..	..	..	109,282	..	..	..	..	..	..	..	29,126
	1947	,,	..	..	..	..	..	..	..	126,449	..	..	..	..	..	..	..	31,372
	1948	,,	..	..	..	..	..	..	..	88,435	..	..	..	..	..	..	..	20,169
	1949	,,	..	..	..	..	..	..	..	155,213	..	..	..	..	..	..	..	38,236
Citronella Oil Federation of Malaya and Singapore (1)	1938	Galls.	—	—	—	—	258	258	50	308	—	—	—	—	159	159	50	209
	1939	,,	—	1	—	—	2,432	2,433	71	2,504	—	1	—	—	1,575	1,576	69	1,645
	1946	,,	—	—	819	—	—	819	—	819	—	—	4,101	—	—	4,101	—	4,101
	1947	,,	2,625	1,671	43,185	—	13,287	60,768	309	61,077	6,188	6,397	93,158	—	30,814	136,557	583	137,140
	1948	,,	2,112	464	6,040	—	1,309	9,925	122	10,047	6,442	1,437	14,896	—	3,603	26,378	44	26,422
	1949	,,	1,368	48	1,500	—	206	3,122	9	3,131	3,192	121	2,800	—	468	6,581	25	6,606
Clovestem Oil Zanzibar Protectorate	1938	lbs.	213,361	5,061	3,272	—	13,824	235,518	—	235,518	22,369	487	300	—	1,210	24,366	—	24,366
	1939	,,	344,128	15,705	4,345	531	2,827	367,536	—	367,536	30,659	1,539	380	46	252	32,876	—	32,876
	1946	,,	308,597	51,964	50,070	—	—	410,631	46	410,677	57,862	16,523	9,388	—	—	83,773	11	83,784
	1947	,,	377,786	5,819	—	—	—	383,605	2,300	385,905	70,835	1,091	—	—	—	71,926	435	72,361
	1948	,,	303,462	3,845	—	—	—	307,307	738	308,045	63,846	900	—	—	—	64,746	213	64,959
	1949	,,	247,107	38,729	22,401	—	12,630	320,867	15	320,882	54,396	10,612	7,601	—	4,442	77,051	7	77,058
Geranium Oil Kenya	1938	lbs.	2,320	—	2,100	—	—	4,420	—	4,420	822	—	1,680	—	—	2,502	—	2,502
	1939	,,	2,425	—	5,060	440	—	7,925	—	7,925	906	—	1,425	139	—	2,470	—	2,470
	1946	,,	570	420	—	—	1,094	2,084	—	2,084	2,258	789	—	—	1,990	5,037	—	5,037
	1947	,,	—	975	—	—	840	1,815	—	1,815	—	2,194	—	—	1,820	4,014	—	4,014
	1948	,,	470	476	210	—	—	1,156	—	1,156	817	791	250	—	—	1,858	—	1,858
	1949	,,	2,571	108	4,229	—	—	6,908	—	6,908	6,858	209	5,203	—	—	12,270	—	12,270

Lemon Grass Oil Tanganyika	1938	lbs.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1939	,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1946	,,	16,275	1,342	4,209	—	3,357	25,183	99	25,282	9,383	945	2,148	—	1,967	14,443	74	14,517
	1947	,,	6,492	524	—	—	—	7,016	—	7,016	4,853	351	—	—	—	5,204	—	5,204
	1948	,,	2,373	1,953	16,661	—	3,274	24,261	464	24,725	770	977	4,460	—	743	6,950	230	7,180
	1949	,,	2,326	4,409	1,948	—	—	8,683	—	8,683	1,133	2,121	970	—	—	4,224	—	4,224
Orange Oil Jamaica	1938	lbs.	9,596	—	13,753	2,380	16,924	42,653	—	42,653	2,078	—	3,340	533	4,220	10,171	—	10,171
	1939	,,	14,829	—	6,945	1,700	27,492	50,966	—	50,966	3,998	—	1,532	480	7,167	13,177	—	13,177
	1946	,,	24,660	7,042	15,522	4,848	—	52,072	277	52,349	12,650	3,310	5,314	2,136	—	23,410	166	23,576
	1947	,,	33,522	7,950	4,403	10,100	—	55,975	—	55,975	21,060	6,581	1,320	5,000	—	33,961	—	33,961
	1948	,,	13,797	1,716	4.000	4,600	—	24,113	—	24,113	7,004	882	2,040	2,323	—	12,249	—	12,249
	1949	,,	40,561	10,745	21,955	2,500	2,100	77,861	—	77,861	15,793	5,261	8,841	1,450	875	32,220	—	32,220
Patchouli Oil Federation of Malaya and Singapore (1)	1938	Galls.	833	16	140	—	609	1,598	—	1,598	3,550	75	587	—	2,082	6,294	—	6,294
	1939	,,	763	21	909	—	643	2,336	—	2,336	2,881	111	3,654	—	2,526	9,172	—	9,172
	1946	,,	236	99	612	—	345	1,292	—	1,292	17,622	3,377	54,334	—	38,113	113,446	—	113,446
	1947	,,	413	305	1,360	—	1,217	3,295	10	3,305	15,563	17,834	46,319	—	46,034	125,750	303	126,053
	1948	,,	2,198	513	4,450	—	2,713	9,874	45	9,919	24,967	7,407	42,570	—	31,681	106,625	661	107,286
	1949	,,	2,562	868	2,120	—	2,826	8,376	55	8,431	26,355	9,848	43,954	—	39,669	119,826	474	120,300
Seychelles ..	1938	lbs.	5,827	223	—	—	—	6,050	4	6,054	1,874	38	—	—	—	1,912	1	1,913
	1939	,,	6,722	492	—	—	2,817	10,031	—	10,031	1,769	247	—	—	782	2,798	—	2,798
	1946	,,	..	..	..	..	..	..	..	13,161	..	..	..	..	..	..	..	135,496
	1947	,,	..	..	..	..	..	..	..	19,852	..	..	..	..	..	..	..	47,304
	1948	,,	..	..	..	..	..	..	..	4,248	..	..	..	..	..	..	..	6,858
	1949	,,	..	..	..	..	..	..	..	3,624	..	..	..	..	..	..	..	4,783
Pimento Oil Jamaica	1938	Galls.	375	—	1,831	—	13	2,219	—	2,219	867	—	4,806	—	36	5,709	—	5,709
	1939	lbs.	713	—	24,429	—	60	25,202	—	25,202	231	—	8,279	—	22	8,532	—	8,532
	1946	,,	4,990	986	54,891	992	—	61,859	331	62,190	3,992	1,069	26,254	577	—	31,892	138	32,030
	1947	,,	65	50	38,279	100	—	38,494	—	38,494	36	22	8,924	62	—	9,044	—	9,044
	1948	,,	—	644	29,167	504	—	30,315	—	30,315	—	228	7,738	183	—	8,149	—	8,149
	1949	,,	—	2,992	12,761	—	—	15,753	—	15,753	—	976	5,161	—	—	6,137	—	6,137
Other Essential Oils (not specified) Kenya (2) ..	1938	lbs.	347	50	7,355	720	—	8,472	40	8,512	266	11	2,094	261	—	2,632	3	2,635
	1939	,,	1,162	—	2,200	—	—	3,362	—	3,362	789	—	682	—	—	1,471	—	1,471
	1946	,,	3,295	3,452	—	—	420	17,167	—	17,167	7,475	2,532	—	—	700	10,707	—	10,707
	1947	,,	3,526	3,234	400	—	1,458	8,618	—	8,618	3,700	1,581	196	—	1,417	6,894	—	6,894
	1948	,,	5,103	—	—	—	—	5,103	42	5,145	1,459	—	—	—	—	1,459	10	1,469
	1949	,,	4,389	1,350	5,200	—	250	11,189	—	11,189	943	360	1,075	—	87	2,465	—	2,465

N.B.—Other exporters (See Introductory Note 5) Leeward Islands (Bay Oil and Orange Oil) ; Kenya (Lemon Grass Oil) ; Dominica and Tanganyika (Orange Oil).

Small quantities of the following essential oils have been excluded from the table :

Grapefruit Oil from Jamaica, Leeward Islands, Trinidad and Tobago and Dominica.
Lemon Oil from Jamaica.
Eucalyptus Oil from Malaya and Seychelles.
Geranium Oil from Tanganyika.
Origanum Oil from Cyprus.
Nutmeg Oil from Grenada.
Other Oils (not specified) from Tanganyika, Cyprus and Jamaica.

TABLE 99: ESSENTIAL OILS (OTHER)—*(continued)*

Malaya has a substantial entrepôt trade in other essential oils (not specified) ; its imports and exports were as follows :

	Imports		*Exports*	
Year	*Quantity (Gallons)*	*Value (£)*	*Quantity (Gallons)*	*Value (£)*
1938	13,434	15,596	2,384	2,013
1939	26,140	29,484	1,981	3,947
1946	13,952	35,855	2,482	11,598
1947	10,907	39,462	984	10,287
1948	6,401	33,128	1,644	12,675
1949	11,125	59,763	2,264	14,563

(1) Imports of Malaya were as follows :

	Citronella Oil	
Year	*Quantity (Gallons)*	*Value (£)*
1938	3,590	2,137
1939	7,342	3,920
1946	701	775
1947	65,588	124,308
1948	11,585	28,555
1949	1,643	3,457

	Patchouli Oil	
Year	*Quantity (Gallons)*	*Value (£)*
1938	340	1,282
1939	71	187
1946	1,757	62,127
1947	4,826	55,717
1948	10,211	95,651
1949	6,041	80,472

(2) Other than Cedarwood Oil and Geranium Oil.

TABLE 100 : PYRETHRUM

		Quantity (Tons)								Value (£)							
Colony, etc.	*Year*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*	*U.K.*	*Other Parts of Sterling Area*	*U.S.A., etc., and the Philippines*	*Canada and Newfoundland*	*Other Countries*	*Total excluding Inter-Colonial Trade*	*Inter-Colonial Trade*	*Total Domestic Exports*
East and Central Africa																	
Kenya and Uganda ..	1938	86	76	1,518	—	92	1,772	27	1,799	8,601	8,407	150,512	—	9,703	177,223	2,820	180,043
	1939	122	100	2,515	—	18	2,755	26	2,781	15,448	13,202	322,466	—	2,630	353,746	3,424	357,170
	1946	50	359	6,775	—	169	7,353	95	7,448	7,860	57,021	1,050,935	—	26,295	1,142,111	15,117	1,157,228
	1947	—	45	1,450	—	150	1,645	84	1,729	—	6,763	231,940	—	22,540	261,243	10,756	271,999
	1948	98	19	1,125	—	135	1,377	93	1,470	12,578	2,465	144,001	—	17,330	176,374	12,248	188,622
	1949	85	145	3,452	—	20	3,702	123	3,825	11,651	20,369	554,231	—	3,180	589,431	15,189	604.620
Tanganyika	1938	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	1939	12	—	80	—	2	94	6	100	1,835	—	8,914	—	224	10,973	609	11,582
	1946	150	210	—	—	—	360	308	668	20,041	31,955	—	—	—	51,996	34,542	86,538
	1947	—	—	25	—	—	25	216	241	—	—	2,750	—	2	2,752	24,267	27,019
	1948	—	—	—	—	—	—	170	170	—	—	11	—	—	11	17,526	17,537
	1949	5	—	136	—	—	141	—	141	1,000	—	25,100	—	—	26,100	—	26,100
Totals	1938	86	76	1,518	—	92	1,772	27	1,799	8,601	8,407	150,512	—	9,703	177,223	2,820	180,043
	1939	134	100	2,595	—	20	2,849	32	2,881	17,283	13,202	331,380	—	2,854	364,719	4,033	368,752
	1946	200	569	6,775	—	169	7,713	403	8,116	27,901	88,976	1,050,935	—	26,295	1,194,107	49,659	1,243,766
	1947	—	45	1,475	—	150	1,670	300	1,970	—	6,763	234,690	—	22,542	263,995	35,023	299,018
	1948	98	19	1,125	—	135	1,377	263	1,640	12,578	2,465	144,012	—	17,330	176,385	29,774	206,159
	1949	90	145	3,588	—	20	3,843	123	3,966	12,651	20,369	579,331	—	3,180	615,531	15,189	630,720

N.B.—Small exports from Zanzibar have been excluded (See Introductory Note 5).

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